

ANNUAL REPORT

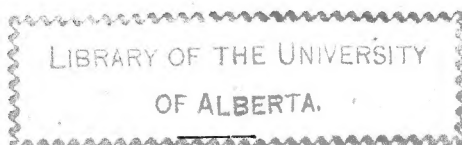
OF THE

DEPARTMENT OF PUBLIC WORKS

OF THE

PROVINCE OF ALBERTA

1913



PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY



EDMONTON:
PRINTED BY J. W. JEFFERY, GOVERNMENT PRINTER
1914

CONTENTS

Report of Deputy Minister.....	7
Bridges	10
Ferries	20
Ordinary Roads	21
Trunk Roads	29
Architectural and Building Construction Branch	34
Surveys Branch	37
Mines Branch	61
Steam Boilers Branch	170
Correspondence Branch	253

13221

EDMONTON, April 6th, 1914.

To His Honour,

GEORGE HEDLEY VICARS BULYEA,

Lieutenant Governor of the Province of Alberta.

SIR,—I have the honour to transmit the Annual Report of the Department of Public Works from January 1st to December 31st, 1913.

I have the honour to be, Sir,

Your obedient servant,

CHAS. STEWART,

Minister of Public Works.

REPORT

OF THE

DEPUTY MINISTER OF PUBLIC WORKS

HON. CHAS. STEWART, M.P.P.,
Minister of Public Works.

SIR,—I have the honour to submit herewith the report of the Department of Public Works for the year 1913.

The work of your Department was carried on throughout the year without serious interruption of any kind, and satisfactory progress was made in all branches of the work.

In the Highways Branch the bridge construction crews were employed to good advantage. While the total number of bridges dealt with during the year was somewhat smaller than in 1912, there were several important permanent structures completed which more than made up for any diminution of numbers. In all there were 440 bridges dealt with, of which 98 were repaired, 26 steel bridges and 316 wooden bridges were constructed.

The most important bridges completed during the year were the three 200 ft. steel spans north of Coaldale on the Belly River, the two 200 ft. steel spans over the same river south of Monarch, the two 200 ft. steel spans over Sheep Creek at Okotoks, and the two 160 ft. steel spans over Waterton River, north of Glenwood. These were erected on concrete piers and abutments and will be of great and permanent value to those portions of the country which they serve. There were also several single span steel bridges erected on concrete abutments at different points in the Province. A considerable number of steel bridges were erected on pile substructures. These will serve the needs of the people for years and when the time comes that the foundations have to be renewed, conditions may have so changed as to make permanent foundations feasible.

The small bridges built some years ago are beginning to need repairs and re-construction. If your Department is to be able to carry out its policy of providing adequate bridge facilities for new settlements, the repair and re-construction of the bridges previously supplied to the older settlements will have to be undertaken by the local organization.

There were 11 new ferries built and installed during 1913. In addition to these there were 6 new ferry scows built to replace those that were worn out.

There were therefore 60 ferries in the Province at the end of 1913, as compared with 49 at the end of 1912.

A large amount of Trunk Roads work was carried on during the year, the policy being the same as that outlined in my report of last year.

A large amount of work was done on roads other than Trunk Roads.

In view of the fact that this Province is just now being settled and that the settlement and opening up of the country must extend over a period of years, the policy of the Government has been to open up, as far as circumstances would permit, passable roads whereon communities could reach their nearest town or railway station. It was believed that the settler would be able to find a way to reach his nearest road and that as the country was brought under cultivation and the farms became more productive, the people would be perfectly able and willing to maintain and improve the roads provided them, and to extend them according to their requirements. That this work might be most effectively carried on the Government has provided for the organization of Local Improvement Districts and Rural Municipalities, and these organizations have power to levy and collect taxes and expend their funds for the betterment of their respective districts. This policy, although correct in principle, has not met with the success that it merited. While some Local Organizations show themselves eager to co-operate with this Department, others continue to show themselves very reluctant to assume any responsibility for the maintenance of improvements made by the Government. It is believed, however, that conditions are improving and that, as our people collectively become better educated in matters pertaining to local self-government a greater degree of co-operation will result.

In the Architectural Branch of your Department considerable work of an important nature was carried on during the year. This included the preparation of designs, the making of working drawings and estimates, the letting of contracts and purchase of materials, and the superintending of construction in connection with the various buildings being erected by the Department. In addition to this the maintenance of the Government buildings in the Province had to be looked after. The most important work carried on during the year were the completion of the Parliament Buildings and the erection of the Government House at Edmonton, the Land Titles Building at Edmonton and Agricultural Schools at Olds, Claresholm and Vermilion.

The work in the Surveys Branch shows a considerable increase over previous years. This was due to the increase in the outside staff and to the weather conditions, which were unusually favourable for work in the field. The unfinished work at the close of the season shows a considerable decrease from the amount carried over from 1912 and proves that a satisfactory gain was made on the outstanding work.

The report from the Coal Mines Branch shows that the output of the Mines of the Province has increased from 3,446,349 tons in 1912 to 4,306,346 tons in 1913, an increase of 859,997 tons, or about 25%. There were 45 new mines opened and 72 abandoned during the year. The latter, however, are in many instances only temporarily abandoned until such time as transportation facilities are secured. There is now a total of 289 mines in operation in the Province.

There were in all 28 fatal accidents, 4 of which were above ground and 16 under ground. The Mines Act as prepared by the Commission appointed in 1912, and passed by the Provincial Legislature in March, 1913, has been in operation for most of the year and has been found to be satisfactory. The use of electricity in mines has been put under

regulation by Order-in-Council and similar rules are being prepared governing the use of gasoline motors. The work at the mine rescue stations is being carried on with great thoroughness and every effort is being made by your Department to reduce to a minimum the risks attendant on the coal mining industry.

In the administration of the Steam Boilers Act your Department has been considerably handicapped during the past year. Through the resignations of the Chief Boiler Inspector and two District Inspectors, it was necessary to re-organize the work. The rapid development of the City of Medicine Hat and the surrounding territory rendered the establishment of a new inspection district imperative. As a result four inspectors were new to the work and two others, were working in new territory. Otherwise the year's work was very satisfactory. There were 1592 certificates issued to cover boilers inspected, 1509 engineer's certificates and 317 permits issued, and fees amounting to \$18,565.98 collected.

Fully 50% of the boilers now in use in the Province have been built in accordance with Alberta Regulations.

The report of the Correspondence Branch shows a slight increase over 1912.

This is true also of the Accountant's Branch, where an increase is shown in both the revenue and expenditure of the Department.

Respectfully submitted,

JOHN STOCKS,
Deputy Minister.

BRIDGES

The total number of bridges dealt with by this Department in 1913 was 440. Of these 26 were steel bridges, 316 were wooden structures, mostly of the standard type, and 98 were repaired.

The timber bridges, where possible and feasible, are built in standard sizes of 16, 18 or 20 ft. spans. These are built on pile substructures and provide for a clear 16 ft. roadway. The 16 ft. span is built with seven stringers, 6 in. in width and 12 in. in depth. The 18 and 20 ft. spans have five stringers, 8 in. in width and 12 in. in depth, while the two outside stringers are 6 in. wide and 12 in. deep. These stringers are of B.C. fir. The floor is of 3 in. plank, fir or larch, a substantial railing is added, extending out a distance of 8 ft. to the wing piles. These bridges, when new, are capable of carrying a maximum load of 24 tons, naturally, after a few years they will begin to weaken, and after about ten years it will be necessary to replace many of them with new structures. It is cheaper in most instances to do this than to undertake the construction of more permanent bridges, at this stage of our development.

The steel bridges begun in 1912 were all completed. They included the following:—

One 110 ft. span on pile substructure over the Battle River, north of Chauvin.

One 125 ft. span on piles over the Battle River, north of Edgerton.

One 100 ft. span on piles with two 20 ft. pile bent approaches over the Medicine River, west of Penhold.

One 100 ft. span on piles with four 20 ft. pile bent approaches over the Little Red Deer River, west of Innisfail.

One 80 ft. span on piles with one 20 ft. pile bent approach over the Little Bow River, east of Parkland.

One 80 ft. span on concrete abutments over the Old Man River, south of Burmis.

One 40 ft. span on abutments (concrete) over Ross Creek at Fort Saskatchewan.

The bridge over Sheep Creek at Okotoks, which consists of two 200 ft. camel back trusses with 18 ft. roadway erected on concrete substructure.

The bridge over the Old Man River south of Monarch, which also consists of two 200 ft. camel back trusses on concrete substructure.

The bridge over the Belly River north of Coaldale, which consisted of three 200 ft. camel back trusses built on concrete piers and abutments.

There were also built during the year:—

A bridge over the Waterton River north of Glenwood, consisting of two 160 ft. spans on concrete substructure.

One 135 ft. span on concrete over the north branch of the Old Man River at Waldron Crossing, north of Lundbreck.

One 125 ft. span on concrete over the Willow Creek, north of Macleod.

One 80 ft. span on concrete over the Sturgeon River, on the Victoria Trail

One 125 ft. span on piles over Milk River at Benson's Crossing.

One 80 ft. span on piles with one 20 ft. pile bent approaches over the Battle River south-east of Wetaskiwin.

One 110 ft. span on piles with two 20 ft. pile bent approaches over the Battle River south of Hardisty.

One 80 ft. span on piles with two 20 ft. pile bent approaches over the Little Bow River at Carmangay.

One 60 ft. span on piles with two 20 ft. pile bent approaches over Strawberry Creek, north-east of Telfordville.

One 50 ft. span on piles with two 20 ft. pile bent approaches over Weed Creek, north of Ohrnville.

One 60 ft. span on piles over the Sturgeon River, east of Villeneuve.

The following bridges were begun during the year and will be open for traffic early in 1914:—

A bridge consisting of 175 ft. camel back truss on concrete substructure over the High River at High River.

An 80 ft. span on concrete over the Blackmud Creek, south-west of Edmonton.

A 90 ft. span on concrete with 20 ft. clear roadway and two 5 ft. sidewalks over the Sturgeon River at St. Albert.

A 60 ft. span on piles over the Sturgeon River, east of St. Albert.

Owing to damage by flood one span of the two 125 ft. steel bridge over the Red Deer River at Niddrie's Crossing had to be reconstructed and an additional 80 ft. steel span added.

This bridge now consists of two 125 ft. and one 80 ft. steel spans on pile piers and abutments.

A full list of all bridges dealt with during the year is hereto appended.

BRIDGES, 1913

STREAM	LOCATION	REMARKS
Athabasca River	Backwater on Edson Trail	100 ft. log bridge on 3 piers.
Arm of Shooting Lake..	19/24-37-16-4	One 16 ft. frame bent.
Amisk Creek	1/6-50-18/19-4	One 18 ft. span on piles.
Amisk Creek	19/30-49-18-4	One 20 ft. span on piles.
Amisk Creek	12/13-49-19-4	Repaired.
Amisk Creek	7/12-49-18/19-4	One 16 ft. span on piles.
Big Knife Creek.....	3/34-39/38-17-4	One 20 ft. span on piles.
Beaver Dam Creek....	35-37-14-4	Seven 20 ft. timber trestle.
Big Knife Creek.....	8-40-17-4	Two 20 ft. spans on piles.
Big Knife Creek.....	2/3-39-17-4	One 20 ft. span on piles.
Big Knife Creek.....	31/32-39-17-4	One 20 ft. span on piles.
Belly River	7/12-10-16/17-4	Repaired.
Belly River	26/35-10-20-4	Three 200 ft. steel spans on concrete substructure.
Black Coulee	8-1-11-4	One 16 ft. span on piles.
Battle River	34-44-23-4	Repaired.
Battle River	31-45-22-4	Repaired.
Battle River	24/25-45-23-4	80 ft. steel span on piles with 2-20 ft. pile bent approaches.
Bigstone Creek	7-46-25-4	Repaired.
Blindman River	21/28-45-2-5	Two 20 ft. spans on piles.
Battle River	23/24-45-2-4	Completion of 110 ft. steel span on piles.
Battle River	35-45-3-4	Completion of 125 ft. steel span on piles.
Blackfoot Coulee	12-47-1-4	One 16 ft. frame bent.
Bow River	14-19-18-4	Twenty-eight 24 ft. pile bents.
Battle River	2/35-41/42-17-4.....	One 110 ft. steel span on piles with one 20 ft. pile bent app.
Bullhorn Coulee.....	3/33-2/3-26-4	One 16 ft. span on piles.
Bullhorn Coulee.....	I. R. 3-26-4	Two 20 ft. spans on piles.
Beaver Dam Creek....	1/36-28/29-3-5	Repaired.
Blackmud Creek	1/52-25-4	80 ft. steel span on concrete.
Blackmud Creek	32-51-24-4	Repaired.
Bow River	Southwest of Gleichen	Repaired.
Berry Creek	7/18-28-11-4	Three 20 ft. frame bents.
Berry Creek	20/29-29-11-4	Two 20 ft. spans on piles.
Berry Creek	3/33-22/23-12-4	Grading approaches.
Berry Creek	3/4-22-12-4	Three 20 ft. spans on piles.
Bull Pound Creek	N. 10-31-14-4	One 20 ft. frame bent.
Bull Pound Creek	9/10-31-14-4	One 16 ft. frame bent.
Bull Pound Creek	20/21-30-14-4	One 20 ft. frame bent.
Bull Pound Creek	32/33-29-14-4	Two 18 ft. frame bents.
Bull Pound Creek	28/29-30-14-4	One 20 ft. frame bent.
Bull Pound Creek	16/17-30-14-4	One 12 ft. frame bent.
Berry Creek	N. 34-24-11-4	One 18 ft. frame bent.
Berry Creek	4/33-22/23-13-4	Three 20 ft. frame bents.
Berry Creek, E Branch	22/27-24-11-4	One 18 ft. frame bent.
Berry Creek, E Branch	23/24-25-11-4	One 16 ft. frame bent.
Blindman River	2/3-40-1-5	Repaired.
Bullhead Coulee	7-12-5-4	Repaired.
Battle River.....	16/21-44-27-4	Three 20 ft. spans on piles.
Blindman River, Branch	22/27-44-3-5	One 18 ft. span on piles.
Blindman River, Branch	1/2-44-3-5	One 20 ft. span on piles.
Blindman River.....	31/32-43-2-5	Three 20 ft. spans on piles.
Blindman River, Branch	7/8-44-3-5	One 16 ft. span on piles.
Blindman River, Branch	24/25-44-2-5	Two 16 ft. spans on piles.
Blindman River, Branch	7/18-44-3-5	One 16 ft. span on piles.
Battle River	29/32-40-10-4	One 110 ft. steel span and two 20 ft. spans on piles.

STREAM	LOCATION	REMARKS
Creek	S. of 3-27-9-4	One 20 ft. frame bent.
Creek	27/28-27-9-4	One 16 ft. frame bent.
Creek	Lake Lot 42	
	Lac La Biche.....	Log bridge.
Creek	S. of 2-23-21-4	One 16 ft. span on piles.
Creek	2/3-23-21-4	One 16 ft. span on piles.
Creek	On Blackfoot Trail	
	South of Cluny	Repaired.
Creek	1/36-24/25-22-4	One 20 ft. span on piles.
Creek	N. W. of 7-25-15-4	Two 20 ft. spans on piles.
Creek	N. E. of 22-48-21-4	One 16 ft. span on piles.
Creek	11/14-48-21-4	Two 16 ft. spans on piles.
Creek	23/24-48-21-4	One 16 ft. span on piles.
Creek	7/18-48-20-4	One 16 ft. span on piles.
Creek	14/15-48-21-4	One 16 ft. span on piles.
Creek	14/15-26-1-5	One 20 ft. span on piles.
Creek	30-2-24-4	Repaired.
Creek	3/4-3-26-4	One 18 ft. span on piles.
Creek	19/30-5-19-4	Repaired.
Creek	17/18-2-27-4	One 20 ft. span on piles.
Creek	7/12-5-20/21-4	One 20 ft. span on piles.
Creek	N. of 8-4-24-4	One 18 ft. span on piles.
Creek	31-5-26-4	One 20 ft. span on piles.
Creek	28-11-29-4	One 20 ft. span on piles.
Creek	21/22-26-5-5	Repaired.
Coal Creek.....	24/25-26-5-5	Two 20 ft. spans on piles.
Creek	19-26-5-5	One 20 ft. span on piles.
Creek	R. L. 5-26-6-5	Two 20 ft. spans on piles.
Crossfield Creek	27/28-28-1-5	One 20 ft. span on piles.
Creek	34/35-37-9-4	One 20 ft. span on piles.
Creek	4/5-36-11-4	One 20 ft. frame bent.
Creek	22/23-33-7-4	One 12 ft. frame bent.
Creek	N. of 34-34-5-4	One 20 ft. span on piles.
Creek	9/10-31-1-5	Repaired.
Creek	20-51-24-4	Repaired.
Creek	9/16-25-22-4	One 18 ft. span on piles.
Creek	31/36-22-25/26-4	One 20 ft. span on piles.
Crossfield Creek	9-27-27-4	Two 20 ft. spans on piles.
Creek	5-30-18-4	One 20 ft. span on piles.
Creek	S. E. of 14-29-20-4	One 20 ft. span on piles.
Creek	14-29-20-4	One 20 ft. span on piles.
Creek	14-29-20-4	Two 18 ft. spans on piles.
Creek	14-29-20-4	One 20 ft. span on piles.
Creek	14-29-20-4	Two 18 ft. spans on piles.
Creek	N. of 35-31-18-4	One 16 ft. span on piles.
Creek	7/8-32-17-4	One 20 ft. span on piles.
Creek	3/4-30-19-4	One 16 ft. frame bent.
Creek	W. of 7-30-18-4	One 20 ft. frame bent.
Creek	5/6-30-18-4	One 20 ft. frame bent.
Creek	28/29-30-18-4	One 20 ft. frame bent.
Creek	W. of 7-32-16-4	One 20 ft. span on piles.
Creek	7-19-28-4	Repaired.
Coulee	N. E. of 10-37-5-5	One 20 ft. span on piles.
Creek	S. E. of 4-41-22-4	One 20 ft. and 2-12 ft. spans on piles.
Creek	16-54-3-5	One 16 ft. span on piles.
Coulee	1-9-22-4	Temporary bridge.
Creek	2-9-22-4	Repaired.
Creek	1/6-6-26/27-4	One 18 ft. and one 16 ft. pile spans.
Coulee	6/1-6-5/6-4	One 16 ft. span on piles.
Creek	1/6-6-6/7-4	One 16 ft. span on piles.
Coulee	13/18-11-2/3-4	Two 20 ft. spans on piles.
Coulee	16/17-10-9-4	One 8 ft. frame bent.
Coulee	7/12-20-28/29-4	Repaired.

STREAM	LOCATION	REMARKS
Creek	25-22-3-5	One 16 ft. span on piles.
Creek	35-20-1-5	One 20 ft. span on piles.
Creek	35-20-1-5	One 16 ft. span on piles.
Creek	19-22-2-5	One 16 ft. span on piles.
Creek	16-21-29-4	One 20 ft. span on piles.
Creek	13/14-74-6-6	One 24 ft. and one 14 ft. pile spans.
Creek	10/16-72-5-6	Small bridge.
Creek	R. Lot 2-82-23-5	Repaired.
Creek	7/8-57-2-5	One 20 ft. span on piles.
Creek	W. 1-58-2-5	One 18 ft. span on piles.
Creek	2/3-57-3-5	One 20 ft. span on piles.
Creek	19-7-1-5	Two 16 ft. pile bridges.
Creek	S. 6-42-2-5	One 16 ft. span on piles.
Creek	20/21-42-27-4	One 16 ft. span on piles.
Creek	S. 2-42-23-4	One 18 ft. span on piles.
Creek	23/26-44-2-5	One 16 ft. span on piles.
Creek	W. 30-42-25-4	Two 16 ft. spans on piles.
Creek	10/15-44-3-5	One 18 ft. and 2-12 ft. spans on piles.
Creek	15-43-23-4	One 16 ft. span on piles.
Creek	21-43-23-4	One 16 ft. span on piles.
Creek	19/30-37-23-4	One 18 ft. span on piles.
Creek	20/21-37-26-4	One 16 ft. span on piles.
Creek	36-87-24-4	One 18 ft. span on piles.
Creek	W. 6-46-13-4	Two 20 ft. spans on piles.
Creek	20/21-58-8-4	One 16 ft. span on piles.
Creek	10-57-5-4	Small bridge.
Coulee	22-52-25-4	Seven 20 ft. spans on piles.
Creek	9/16-53-2-5	Grading.
Creek	10/11-65-22-4	One 16 ft. span on cribs.
Creek	2/3-65-22-4	One 14 ft. span on cribs.
Creek	7/12-65-21/22-4	One 16 ft. span on cribs.
Creek	9/10-65-22-4	One 16 ft. span on cribs.
Creek	11/14-39-18-4	One 20 ft. span on piles.
Creek	22/27-39-18-4	One 20 ft. span on piles.
Creek	31/36-36-16/17-4	One 16 ft. span on piles.
Creek	N. of 31-36-20-4	One 20 ft. span on piles.
Creek	5/32-5/6-20-4	Grading.
Coulee	5-6-20-4	Grading.
Creek	32/33-9-11-4	One 12 ft. frame bent.
Creek	3/4-51-16-4	One 16 ft. frame bent.
Creek	13/14-54-19-4	One 16 ft. span on piles.
Creek	3/34-55/56-21-4	One 20 ft. span on piles.
Creek	13/18-58-18/19-4	One 20 ft. span on piles.
Creek	7/12-56-18/19-4	One 20 ft. span on piles.
Creek	12-58-17-4	Repaired.
Coulee	9/16-1-12-4	Grading.
Coulee	7/18-1-13-4	One 16 ft. span on piles.
Creek	1/2-46-24-4	Repaired.
Creek	29-46-23-4	One 18 ft. span on piles.
Creek	14-47-2-5	Three 20 ft. spans on piles.
Creek	13/14-45-26-4	One 20 ft. span on piles.
Creek	E. of 36-46-27-4	One 20 ft. span on piles.
Creek	20/21-45-26-4	One 20 ft. span on piles.
Creek	24/25-46-26-4	Two 18 ft. spans on piles.
Creek	21/28-46-3-5	Two 20 ft. spans on piles.
Creek	26/27-45-27-4	One 16 ft. span on piles.
Creek	22/23-45-26-4	One 20 ft. span on piles.
Creek	N. 34-45-26-4	One 16 ft. span on piles.
Creek	W. 18-45-26-4	One 16 ft. span on piles.
Creek	25/30-46-26/27-4	Two 20 ft. spans on piles.
Creek	1/6-46-26/27-4	One 16 ft. span on piles.
Creek	19/20-45-26-4	One 20 ft. span on piles.
Creek	13/14-46-27-4	One 20 ft. span on piles.

STREAM	LOCATION	REMARKS
Creek	26/27-46-27-4	One 16 ft. span on piles.
Creek	5/6-47-3-5	One 16 ft. span on piles.
Deer Creek	28/29-52-4-4	One 16 ft. span on piles.
Daly Creek	20/29-10-27-4	Two 20 ft. spans on piles.
Dog Pound Creek.....	26/27-31-3-5	Four 20 ft. spans on piles.
Driftpile Creek	73-12-5	One 70 ft. timber truss with three 20 ft. spans on piles.
Dickson's Creek	10/15-36-2-5	One 20 ft. span on piles.
Dickson's Creek	9/10-36-2-5	Two 20 ft. spans on piles.
Dickson's Creek	11/12-36-3-5	One 20 ft. span on piles.
Drummond Creek	26/35-38-7-5	One 20 ft. span on piles.
Deadman Coulee	14-7-3-5	One 18 ft. frame bent.
Deer Creek	10/15-1-12-4	Grading approaches.
Eightmile Creek	29/32-49-26-4	Repaired.
Flat Creek	3/33-66/67-19-4	Repaired.
Floyds Coulee	S. W. 16-29-24-4	One 16 ft. frame bent.
Fallen Timber Creek...	34-31-5-5	Repaired.
Frog Creek	8-55-1-5	Two 20 ft. spans on piles.
Fish Creek	4-23-1-5	Repaired.
Foster Creek	18/19-74-5-6	Small bridge.
Frog Creek	19/30-55-3/4-4	Three 16 ft. spans on cribs.
Frog Creek	N. 31-55-3-4	One 20 ft. span on piles.
Goose Creek	18-70-23-5	Three 20 ft. span frame bent.
Goose Creek	Lake Lot 9-54-3-5	One 20 ft. span on piles.
Gros Ventres Creek...	8-11-4-4	Repaired.
Ghost Pine Creek.....	23/26-34-24-4	Grading approaches.
Ghost Pine Creek.....	30/25-32-22/23-4	Two 20 ft. spans on piles.
Horseguard Creek	19/30-27-4-5	One 18 ft. span on piles.
Heart River.....	24-76-18-5	40 ft. truss and 20 ft. span on cribs.
High River	At High River	175 ft. steel span on concrete under construction.
Hay Coulee	3/4-8-26-4	Repaired.
High River	17-20-28-4	Repaired.
High River	N. E. 16-21-28-4	Repaired.
Heart River	At Peace River Cross..	Repaired.
Irish Creek	16/17-54-4-4	One 16 ft. span on piles.
Irish Creek	E. of 1-54-4-4	One 16 ft. frame bent.
Iron Creek	17-43-9-4	Two 20 ft. spans on piles.
Iron Creek	N. 36-46-14-4	Two 20 ft. spans on piles.
Iron Creek	W. 6-47-13-4	Two 20 ft. spans on piles.
Iron Creek	22/23-44-12-4	Three 20 ft. spans on piles.
Iron Creek	N. 35-44-13-4	Three 20 ft. spans on piles.
Iron Creek	21/22-44-11-4	Three 20 ft. spans on piles.
Irrigation Canal	4/5-6-21-4	Two 20 ft. spans on piles.
James River	14-34-5-5	Bank protection.
Kipp Coulee	29/30-5-20-4	Repaired.
Knee Hill Creek	14-29-23-4	Repaired.
Knee Hill Creek	S. W. 1/4-15-29-23-4	Repaired.
Knee Hill Creek	14-29-23-4	Repaired.
Knee Hill Creek	N. 35-29-25-4	Five 20 ft. spans on piles.
Knee Hill Creek	13-29-23-4	Repaired.
Knee Hill Creek	17/20-29-23-4	Repaired.
Knee Hill Creek	16/17-29-23-4	Repaired.
Knee Hill Creek	15/16-29-23-4	Repaired.
Knee Hill Creek	21/28-29-24-4	Repaired.
Knee Hill Creek	15-29-23-4	Repaired.
Knee Hill Creek	N. 36-28-22-4	One 20 ft. span on piles.
Kipp Coulee	27/28-5-9-4	One 20 ft. span on piles.

STREAM	LOCATION	REMARKS
Knee Hill Creek	20/29-33-27-4	One 18 ft. span on piles.
Knotts Creek	R. L. 4-82-23-4	Small bridge.
Katchemut Creek	12/13-51-19-4	Two 16 ft. spans on piles.
Layton Coulee	On Blood Indian Res. ..	One 20 ft. span on piles.
Lee's Creek	9-3-25-4	Repaired.
Lone Pine Creek	19/30-31-27-4	One 20 and 2-16 ft. spans on piles.
Lone Pine Creek	19/20-31-27-4	Two 20 ft. pile spans.
Lone Pine Creek	N. 31-36-26-4	One 20 ft. pile span.
Little Red Deer River ..	19-35-1-5	Repaired.
Little Red Deer River ..	9/16-35-2-5	100 ft. steel span with 4-20 ft. pile bent app'chs completed.
Lobstick River	25/30-40-5/6-5	Two 20 ft. spans on piles.
Little Bow River	S. 5-15-25-4	One 80 ft. steel span and 2-20 ft. pile span approaches.
Little Bow River	N. W. 32-13-23-4	One 80 ft. steel span and 2-20 ft. pile span bent app'chs.
Lone Pine Creek	7-33-28/29-4	One 18 ft. span on piles.
Lake Thomas	17-48-12-4	Two 20 ft. spans on piles.
Long Lake Creek	22/23-56-5-4	Two 20 ft. spans on cribs.
Laurier Lake Creek	23-56-4-4	Small bridge.
Little Pine Creek	10-65-22-4	24 ft. pole bridge.
Limestone Lake	26/27-56-18-4	One 20 ft. span on piles.
Little Stone Creek	11/14-46-27-4	Repaired.
Meadow Creek	25/30-11-27/28-4	Two 20 ft. spans on piles.
Marsh Head Creek	On Edson Trail	Log bridge.
Muskeg Creek	S. E. 12-54-17-5	Under construction.
Muskeg Creek	10-54-17-5	Under construction.
Moose River	Lesser Slave Lake Trail	Repaired.
Mechechi Creek	W. 19-30-18-4	One 20 ft. frame bent.
Mechechi Creek	N. 19-30-18-4	One 20 ft. frame bent.
Medicine River	3-37-2-5	100 ft. steel span with 2-20 ft. bent approaches—completed.
Manyberries Creek S Br	7/12-5-5/6-4	Grading approaches.
Mosquito Creek	14/15-16-28-4	Repaired.
Medicine River	9/16-42-4-5	One 18 ft. and two 16 ft. pile spans.
Moose Creek	26-56-5-4	Two 16 ft. spans on piles.
Middle Creek	19-56-4-4	Repaired.
Mott Creek	1/6-36-19/20-4	Repaired.
Mott Creek	5-35-20-4	Two 16 ft. spans on piles.
Mott Creek	25/36-35-20-4	One 20 ft. span on piles.
Mott Creek	31/32-36-20-4	One 20 ft. span on piles.
Milk River	34-1-13-4	One 125 ft. steel span on piles.
Milk River	21/22-2-16-4	One 135 ft. steel span on concrete—under construction
Modeste Creek	9/10-47-3-5	Two 20 ft. spans on piles.
McFadden Creek	24-51-22-4	Three 20 ft. spans on piles.
McKay Creek	2/3-12-1-4	Repaired.
McKay Creek	3/34-11/12-1-4	Four 20 ft. spans on piles.
McKay Creek	26-11-1-4	Repaired.
McKay Creek	27-10-1-4	Three 20 ft. spans on piles.
McKay Creek	8/9-10-1-4	One 20 ft. span on piles.
McKay Creek	32/33-9-1-4	One 20 ft. span on piles.
McKay Creek	28/29-9-1-4	One 16 ft. span on piles.
McKay Creek	14/23-9-1-4	Two 20 ft. spans on piles.
McDonald Coulee	12-1-11-4	Repaired.
Narrows of Lesser Slave Lake	At Grouard	Building bridge.
Nine Mile Coulee	20/29-6-21-4	Repaired.
Nine Mile Coulee	15/16-6-21-4	Grading.

STREAM	LOCATION	REMARKS
Oldman River	W. 33-11-27-4	One 135 ft. steel span on concrete with 2-20 ft. pile bent approaches.
Outlet of Wood Lake ..	18-40-3-5	Two 20 ft. spans on piles.
Outlet of Devil's Lake ..	5-55-1-5	Four 20 ft. spans on piles.
Oldman River	1/6-10-23/24-4	Two 200 ft. steel spans on concrete substructure.
Oldman River	13-9-26-4	Repaired.
Oldman River	At Brockett	Bank protection.
Oldman River	12-7-3-5	80 ft. steel span on concrete.
Prairie River	11-74-16-5	60 ft. truss and 2-20 ft. spans on piles.
Parlby Creek	6/36-40/41-23-4	Repaired.
Plum Coulee	28/29-11-5-4	Repaired.
Pine Coulee	10/15-14-28-4	20 ft. span reconstructed.
Pine Coulee	3/34-13/14-28-4	20 ft. span reconstructed.
Pine Creek	11/14-73-7-6	Small bridge.
Paint Earth Creek	17/18-40-16-4	One 20 ft. span on piles.
Pot Hole Coulee	7-6-21-4	Three 20 ft. spans on piles.
Police Coulee	3/1/13-4	One 20 ft. frame bent.
Pigeon Creek	1-46-28-4	Grading.
Pigeon Creek	15-46-28-4	Repaired.
Pipestone Creek	4-47-23-4	Three 20 ft. spans on piles.
Poplar Creek	S. 3-47-4-5	Four 20 ft. spans on piles.
Ravine	2-69-23-4	Seven 18 ft. spans log trestle.
Robinson Coulee	17-2-26-4	Repaired.
Rocky Coulee	26-28-29-4	Repaired.
Ribstone Creek	S. 26-36-10-4	One 20 ft. span on piles.
Rosebud Creek	17-31-1-5	Repaired.
Rosebud Creek	19/30-31-1-5	Two 20 ft. spans on piles.
Ross Creek	23-12-5-4	Repaired.
Ross Creek	28-12-5-4	Repaired.
Ross Creek	24/25-9-3-4	Two 20 ft. spans on piles.
Ross Creek	7/18-12-3-4	Two 20 ft. spans on piles.
Red Deer River	N. 33-5-5	Bank protection.
Red Deer River	N. 32-5-5	Bank protection.
Red Deer River	36-33-5-5	Two 125 ft. steel bridge repaired and 80 ft. pony truss added.
Red Deer River	3-33-5-5	Repaired.
Red Deer River	28-38-22-4	Repaired.
Ribstone Creek	13/14-42-6-4	One 20 ft. span on piles.
Ravine	25-42-10-4	One 20 ft. span on piles.
Ravine	24-42-10-4	One 16 ft. span on piles.
Ravine	24-42-10-4	Four 20 ft. spans on piles.
Riviere Qui Barre	21/22-55-26-4	One 16 ft. span on piles.
Ravine	8-52-25-4	Two 16 ft. spans on piles.
Ravine	4/5-52-25-4	One 16 ft. span on piles.
Redwater River	21/22-58-22-4	One 20 ft. span on piles.
Redwater River	19/30-58-22-4	Two 16 ft. spans on cribs.
Redwillow Creek	4/33-39/40-18-4	One 20 ft. span on piles.
Redwillow Creek	4/33-39/40-18-4	One 18 ft. span on piles.
Ross Creek	11/12-53-19-4	Two 20 ft. spans on piles.
Ross Creek	7/12-53-18/19-4	Two 20 ft. spans on piles.
Ross Creek	32-54-22-4	One 40 ft. steel span on concrete.
Ribstone Creek	21/28-44-5-4	Two 18 ft. spans on piles.
Ribstone Creek	25/26-44-5-4	Two 18 ft. spans on piles.
Ribstone Creek	9/16-44-5-4	Two 18 ft. spans on piles.
Sounding Creek	In 24-30-5-4	One 20 ft. span on piles.
Sounding Creek	24/25-30-9-4	One 20 ft. span on piles.
Sounding Creek	20/21-30-8-4	One 20 ft. span on piles.
Sounding Creek	14/15-30-4-4	One 20 ft. span on piles.
Sounding Creek	15/16-30-6-4	One 20 ft. span on piles.

STREAM	LOCATION	REMARKS
Sounding Creek	15/16-30-8-4	One 20 ft. span on piles.
Snake Creek	14/23-2-25-4	Repaired.
Snake Creek	15/22-2-25-4	Repaired.
St. Mary's River	1-2-25-4	Repaired.
St. Mary's River	23-3-25-4	Repaired.
Sounding Creek	11/14-35-4-4	One 20 ft. span on piles.
Sounding Creek	24/25-31-3-4	Piles driven.
Sounding Creek	5/32-30/31-3-4	Piles driven.
Sounding Creek	N. E. 12-34-6-4	One 18 ft. frame bent.
Sounding Creek	25/26-34-11-4	One 18 ft. frame bent.
Sounding Creek	34/35-33-6-4	One 18 ft. frame bent.
Sounding Creek	8/9-35-7-4	One 16 ft. frame bent.
Sounding Creek	N. 31-31-2-4	Piles driven.
Sounding Creek, Branch	17/18-33-6-4	One 18 ft. span, frame.
Sounding Creek	15/16-35-4-4	Two 20 ft. spans on piles.
Sounding Creek	9/10-35-4-4	Two 20 ft. spans on piles.
Sounding Creek	1/36-34/35-5-4	One 18 ft. span on piles.
Slough	E. 12-36-12-4	One 20 ft. frame bent.
Service Berry Creek	19/20-25-24-4	One 20 ft. span on piles.
South Heart River	25-75-17-5	60 ft. truss and 3-20 ft. spans on piles, completed.
Strawberry Creek	11-73-10-5	Two 18 ft. spans on cribs.
South Raven River	17/18-36-4-5	Two 20 ft. spans on piles.
Sturgeon River	14-54-5-5	Repaired.
Sturgeon River	10-55-2-5	Two 20 ft. spans on piles.
Sturgeon River	7/8-55-2-5	Two 20 ft. spans on piles.
Sturgeon River	1/2-55-2-5	Two 20 ft. spans on piles.
Sturgeon River	5/6-55-2-5	Two 20 ft. spans on piles.
Sturgeon River	7-55-2-5	Two 20 ft. spans on piles.
Sturgeon River	35/36-54-3-5	Five 20 ft. spans on piles.
Sturgeon River	10/11-54-5-5	Five 20 ft. spans on piles.
Sturgeon River	24-54-5-5	Three 20 ft. spans on piles.
Snake Creek	35/36-17-22-4	One 20 ft. span on piles.
Snake Creek	19/20-17-22-4	One 20 ft. span on piles.
Snake Creek	34/35-17-22-4	One 20 ft. span on piles.
Spring Coulee	4/33-9/10-3-4	One 14 ft. frame bent.
Seven Persons Creek ..	30-11-6-4	Three 20 ft. spans on piles.
Seven Persons Creek ..	20/29-10-7-4	Repaired.
Spring Coulee	29-20-29-4	Repaired.
Sheep Creek	At Okotoks	Two 200 ft. steel spans on concrete substructure.
Spirit River	7-78-5-6	Bridge reconstructed.
Stinking Creek	4/5-38-23-4	One 18 ft. span on piles.
Subway	5-43-11-4	Catt'e pass.
Sturgeon River	At St. Albert	90 ft. steel span on concrete.
Sturgeon River	16-54-26-4	Repaired.
Sturgeon River	10/15-54-26-4	60 ft. steel span and 2-14 ft. pile bent approaches.
Sturgeon River	14-56-23-4	Repaired.
Sturgeon River	28/29-55-22-4	80 ft. steel span on concrete.
Spruce Creek	18-39-15-4	One 20 ft. span on piles.
Stony Creek	22/27-50-8-4	Repaired.
Sandstone Coulee	8/17-1-12-4	One 40 ft. timber truss.
Spring Creek	11/14-1-12-4	Grading approaches.
Sexton Creek	9/16-1-14-4	One 16 ft. span on piles.
Trout Creek	S. W. ¼-9-12-29-4	Three 20 ft. spans on piles.
Trout Creek	1/12-12-29-4	Three 20 ft. spans on piles.
Three Hill Creek	15-30-23-4	Repaired.
Three Hill Creek	22-30-23-4	Three 20 ft. spans on piles.
Twelve Mile Coulee	29-30-10-21-4	Grading approaches.
Three Hill Creek	36-34-26-4	Two 20 ft. spans on piles.
Three Hill Creek	24/25-33-25-4	One 20 ft. span on piles.
Three Hill Creek	16/17-32-24-4	Two 20 ft. spans on piles.
Three Hill Creek	20/21-34-25-4	Two 16 ft. spans on piles.

STREAM	LOCATION	REMARKS
Tawatinaw River.....	24-62-24-4	Two 16 ft. spans on piles.
Tawatinaw River.....	26-61-24-4	Two 16 ft. spans on piles.
Vermilion River	North of Islay	Repaired.
Vermilion River	12/13-50-15-4	Repaired.
Vermilion River	N. 20-52-14-4	Repaired.
Vermilion River	19-52-14-4	One 20 ft. span on piles.
Vermilion River	34/35-53-14-4	Repaired.
Vermilion River	31/32-50-6-4	Repaired.
Vermilion River	28/29-53-10-4	Grading.
Vermilion River	1/12-51-7/8-4	Repaired.
Vermilion River	20/21-51-9-4	Three 20 ft. spans on piles.
Vermilion River	26/27-54-12-4	Four 20 ft. spans on piles.
Waterton River.....	31-5-26-4	Two 160 ft. steel spans on concrete.
Willow Creek	N. W. 23-1-24-4	Two 20 ft. spans on piles.
Willow Creek	W. 33-11-27-4	Repaired.
Willow Creek	S. W. 25-13-29-4	One 20 ft. span on piles.
Willow Creek	N. W. 26-13-29-4	One 20 ft. span on piles.
Willow Creek	S. E. 31-11-28-4	Three 20 ft. spans on piles.
Whitemud Creek	24/25-51-25-4	Repaired.
Whitemud Creek	6-53-19-5	Log bridge.
Whitefish River	80-11-5	40 ft. truss and 20 ft. span, log bridge.
Wolf Creek	1/6-32-15/16-4	One 20 ft. span on piles.
Wolf Creek	4/33-31/32-15-4	One 20 ft. span on piles.
Wolf Creek, N Branch..	8/9-32-16-4	One 20 ft. frame bent.
Wolf Creek, N Branch..	13/14-32-17-4	One 20 ft. span on piles.
Wolf Creek	33/34-35-15-4	One 18 ft. span on piles.
Wolf Creek	31/32-31-16-4	One 16 ft. span on piles.
West Berry Creek.....	34/35-29-12-4	One 20 ft span on piles.
Willow Creek	29-9-26-4	Repaired.
Willow Creek	20/21-9-26-4	One 125 ft. steel span on concrete with 2-20 ft. pile app.
Wesley Creek	R. L. 3/6-83-25-4	Five 20 ft. spans trestle.
Wolf Creek	N. 10-42-26-4	Two 20 ft spans on piles.
Waskasei Creek	19/30-37-27-4	Two 18 ft. spans on piles.
Willow Creek	22/23-39-18-4	One 20 ft span on piles.
Whiteearth Creek	29-59-17-4	46 ft. log bridge.

FERRIES

The total number of ferries operated by this Department in the year 1913 was 58.

New scows were built for a number of ferries and 11 new ferry boats were built and installed during the year.

New scows were built for the following ferries:

1. Bow River south of Cluny.
2. Athabasca River at Athabasca Landing.
3. North Saskatchewan River at Shandro.
4. Red Deer River at Carbon.
5. Big Smoky River at Edson Trail.
6. Pembina River at Lunnford.

New ferries were built and installed as follows:

1. Pembina River at Wild Horse.
2. Red Deer River west of Munson.
3. Red Deer River at Finnegan's Crossing.
4. Red Deer River at Dead Lodge Canyon.
5. North Saskatchewan River north of Bruderhiem.
6. Pembina River at Manola.
7. Red Deer River at Gregory's Ford.
8. North Saskatchewan River at Elk Point.
9. Red Deer River at Empress.
10. Pembina River at Cosmo.
11. Red Deer River west of Morrin.

The ferry built for the North Saskatchewan River north of Bruderhiem in 1912 was floated down and used to replace the old scow at Pakan and a new boat was built for use north of Bruderhiem. Owing to their not being completed in time to be put in operation the scows north of Bruderhiem and at Dead Lodge Canyon were not launched, although everything is in readiness to begin their operation when navigation opens.

The following is a complete list of ferries in the Province of Alberta at the close of 1913:

1. Red Deer River at Steerford.
2. North Saskatchewan River at Brosseau.
3. North Saskatchewan River at Desjarlais.
4. Athabasca River at Holmes Crossing.
5. Bow River south of Cluny.
6. Red Deer River at Dorothy.
7. Old Man River at Summerview.
8. North Saskatchewan at Victoria.
9. North Saskatchewan at Big Island.
10. Red Deer River at Garrington.
11. North Saskatchewan River at Fourth Meridian.
12. Athabasca River at Athabasca Landing.
13. Red Deer River at Trochu.
14. Pembina River at 23-60-1-5.
15. North Saskatchewan River at Shandro.

16. Pembina River at Wild Horse.
17. North Saskatchewan River at Hopkin's Crossing.
18. Red Deer River at Fieldholm.
19. North Saskatchewan River at Rocky Mountain House.
20. Peace River at Peace River Crossing.
21. Lac Ste Anne at the Narrows.
22. North Saskatchewan north of Kitscoty.
23. North Saskatchewan North of Lamont.
24. Pembina River at Sunniebend.
25. Pembina River at 26-56-7-5.
26. North Saskatchewan River at Lamora's Landing.
27. Bow River South of Strathmore.
28. Peace River at Dunvegan.
29. South Saskatchewan River at Bow Island.
30. Pembina River at Entwistle.
31. Belly River North of Coaldale.
32. Red Deer River at Carbon.
33. Red Deer River at Steeveville.
34. Big Smoky River on the Edson Trail.
35. Little Slave River at Sawridge.
36. Bow River at 27/28-15-16-4.
37. Beaver River at Cold Lake.
38. Bow River at Rocky Buttes.
39. Red Deer River west of Munson.
40. Red Deer River at Finnegan's Crossing.
41. North Saskatchewan River at Moose Telegraph Station.
42. Pembina River at Lunnford.
43. Athabasca River on Edson Trail.
44. Baptiste River on Edson Trail.
45. Little Smoky River on Edson Trail.
46. Bow River at Egremore.
47. McLeod River north of Thornton.
48. Red Deer River at Drumheller.
49. Red Deer River at Dead Lodge Canyon.
50. Bow River at Kinnondale.
51. Beaver River at Tp. 63-4/5-4.
52. North Saskatchewan River north of Bruderhiem.
53. Pembina River west of Hazel Bluff.
54. Pembina River at Manola.
55. McLeod River north of Peers.
56. Red Deer River at Gregory's Ford.
57. North Saskatchewan River at Elk Point.
58. Red Deer River at Empress.
59. Pembina River at Cosmo.
60. Red Deer River west of Morrin.

ORDINARY ROADS, 1913.

Road on range line Tp. 30-4/5-4. Grading and filling.
 Road between 14/15-30-4-4. Grading and repairing.
 Road between 20/21-30-8-4. Grading and repairing.
 Between 34/35-47-1-4. Grading and improving road.
 Road west of Lloydminster. Putting in culverts.
 Road east and west of Oxville in 46-2-4. Clearing road.
 Between 19/30-46-2-4. Improving road.
 South of 1 and 2-66-22-4. Grading road.
 Between 5/6-7/8-67-20-4. Grading road.
 North of 31-65-22-4. Improving road.
 Road east of Athabasca Landing. Putting in Culverts and Grading.
 Between 20/21-66-23-4. Repairing road.
 West of 15 to 22-66-23-4. Grading road.
 West of Tp. 66-21-4. Grading and improving road.
 Between 16/17-67-22-4. Improving road.

Between 28/29-32/33-59-9-4. Grading and improving road.
 Road south of St. Lena through 60/61-10-4. Grading road.
 Road across Owl Eye Lake in 58-10-4. Repairing road.
 East of Lac La Biche Settlement in Tp. 67-13-4. Improving road.
 North of Lac Ste. Vincent, 31/32-59-9-4. Grading road.
 Between 21/22-34/35-57-10-4. Improving road.
 Between 16/17-56-12-4. Repairing road.
 Between 13/24-58-10-4. Levelling road.
 Road north of Plamondonville, 68-16-4. Grading.
 Between 4/5-61-11-4. Improving road.
 Between 25/36-31/30-59-11 and 12-4. Grading road.
 Between 29/30-56-10-4. Repairing road.
 Range line Tp. 58-9/10-4. Improving road.
 Through I. R. on Tp. line 58/59-12-4. Grading road.
 Road east of west of Denisville 59/60-9-4. Grading and improving.
 Between 9/16-58-10-4. Levelling road.
 East of 4-9 & 16 and south of 4, 5 and 6 in 60-15-4.
 East of 4, 9 and 16 and north of 16 in 60-16-4. Repairing road.
 North of Tp. 22-21-4. Grading and putting in culverts.
 West of 2 and 11-23-21-4. Improving road.
 Approach to ferry in 25-15-4. Putting in culverts and grading.
 Between 10/15-21-18-4. Improving road and putting in culverts.
 Between 25/26-35/36-26-1-5. Repairing road.
 South of Calgary. Improving Old Mission Trail.
 Between 31/32-48-21-4. Improving road.
 East of 4 to 33-Tp. 47 & 48-20-4. Grading road.
 South of Miquelon Lake 49-20-4. Grading road.
 Between 13/24-23/24-23/26-44-17-4. Grading road.
 Between 29/30-31/33-48-20-4. Repairing road.
 North of 7 to 12-48-20-4. Grading road.
 Between 10/15-48-17-4. Repairing road.
 Cardston west to Belly River. Improving road.
 Road from Taylorville to St. Mary's River bridge. Putting in culverts
 and grading.
 From Cardston to Mountain View. Putting in culverts.
 Road up Lee's Creek. Grading.
 Between 21/28-20/29-3-24-4. Putting in culverts.
 South of Tp. 2-24-4. Improving road.
 South of Magrath 22/27-5-22-4. Grading road.
 North of Tp. 2-26-4. Repairing road.
 North of 7 to 12-3-24-4. Improving road.
 Road north east of Cardston. Grading.
 On section 13-3-28-4. Improving road.
 West of 9 and 16-2-27-4. Repairing road.
 Between 7/12-13/18-19/24-2-27/28-4. Repairing road.
 Between 1/2-11/12-5-22-4. Culverts and grading.
 Blind line west from Mountain View. Culverts and Grading.
 South of Kimball, Tp. 1-24/25-4. Improving road.
 East of Taylorville in Tp. 1-24-4. Improving road.
 Between 24/25-5-22-4. Repairing wash out.
 South of Raley in 3-24-4. Improving road.
 Southeast of Taylorville in Tp. 1-23/24-4. Repairing grade.
 On 10-1-25-4. Grading side hill.
 Between 27/28-33/34-3-24-4. Repairing road.
 On Section 12-1-25-4. Repairing road.
 Road from Beazer to Leavitt. Grading.
 Between 28/29, 32/33-2-25-4. Culverts and grading.
 On range line Twp. 5-21/22-4. Grading road.
 Road west of Aetna 2-25-4. Grading.
 Between 4/5-2-24-4. Grading and putting in culverts.
 Between 21/22, 27/28-5-22-4. Repairing road.
 East of 34-3-24-4. Improving road.
 Road from Cardston to Glenwood. Putting in culverts.
 On range line in Tps. 4 and 5-21/22-4. Grading road.
 On range line in Tp. 5-20/21-4. Putting in culverts.
 On range line in Tp. 2-23/24-4. Putting in culverts.
 Road from Cardston to Hillspring. Grading road.

Road south of Raymond 28/29-5-20-4. Putting in culverts and grading.
 Between 29/30 5-20-4. Improving road and putting in culverts.
 North of 7 to 12-2-23-4. Grading road.
 On range line Tp. 4-27/28-4. Grading road.
 East of 5 to 32-2-23-4. Repairing road.
 North of Sec. 19 to 24-10-28-4. Improving road.
 Up the south fork of Trout Creek. Improving road.
 North of 25 to 30-11-29-4. Levelling road and putting in culverts.
 On range line Tp. 60-3/4-5. Improving road.
 Between 3/4-9/10-15/16-21/22-60-3-5. Improving road.
 Road from Midford to Dog Pound. Improved.
 Calgary to Beaver Dam Trail. Grading.
 On Nose Creek Bush Trail. Grading.
 Trail from Cochrane to Lochend P. O. Grading.
 North of Sec. 7 to 12-27-4-5. Improving road.
 East of 22-27 & 34-26-4-5. Grading road.
 Road south of Cochrane. Improved.
 Between 3/4-28-4-5. Grading road.
 Between 24/25-23/26-28-4-5. Improving road.
 Road from Dog Pound to Little Red Deer River in 29-5-5. Grading and improving.
 East of Dog Pound in 29-3 & 4-5. Grading and putting in culverts.
 South of Airdrie 1/2-27-1-5. Grading and putting in culverts.
 North of 10-11 and 12-30-5-5. Improving road.
 Between 11/14-13/14-28-4-5. Grading road.
 Up Grand Valley. Grading road.
 North of 19 to 24-27-4-5. Grading road.
 Between 14/15-22/23-29-5-5. Repairing road.
 North of Tp. 25-5-5. Grading road.
 South and east of 14-28-5-5. Improving road.
 East of Cochrane, North of Tp. 25-3-5. Improving road.
 Road north and south of Federal. Culverts and grading.
 Road east and west of Consort. Culverts and Grading.
 Road south-east of Consort in 35-6-4. Improving.
 Road south of Veteran. Grading and putting in culverts.
 Road south of Loyalist. Grading.
 Road north of Tp. 34-10-4. Culverts and grading.
 Road north of Tp. 35-10-4. Grading.
 Road east of Veteran. Grading.
 Road east of Sounding Lake. Grading.
 East and north of Sec. 21-37-11-4. Improving road.
 Between 28/29-37-11-4. Culverts and grading.
 Blind Line west of Carstairs, 30-3-5. Grading.
 Road west from Carbon 29-23-4. Grading and culverts.
 North of 22, 23 & 24-31-4-5. Improving road.
 North of 19 to 24, 29-24-4. Grading road.
 In south-west 24-30-1-5. Grading road.
 North of Tp. 51-25-4. Improving road.
 South of Tp. 51-20-4. Improving road.
 Road east from West Salisbury. Grading.
 Between 20/21-52-22-4. Grading road.
 Between 21/22-51-22-4. Improving road.
 Between 22/23-26/27-52-22-4. Improving road.
 On range line Tp. 52-22/23-4. Repairing road.
 Road north-west from Carrot Creek 53-14-5. Improving.
 In 10-54-17-5. Grading road to bridge.
 Between 31/32-24-22-4. Grading road.
 On range line north of Gleichen. Grading road.
 South of Tp. 23-22-4. Improving road.
 Between 12/13-25-27-4. Grading and culverts.
 West and south of 23-28-4. Grading and culverts.
 North and south of Nightingale. Grading and culverts.
 Between 4/5-22-22-4. Improving road.
 East of 24-22-22-4. Improving road.
 North of 11 and 12-28-12-4. Grading road.
 In 7-25-15-4. Grading approach to ferry.
 Between 19/30-31-16-4. Putting in culverts.

In 14 and 15-29-20-4. Grading and culverts.
 Between 8/9-31-18-4. Grading road.
 Between 9/16-31-18-4. Grading road.
 Road from High River to Longview. Repairing road and putting in culverts.

Between 10/11-19-1-5. Repairing road.
 East of 6 to 31-18-28-4. Grading road.
 Road west of Tp. 37-28-4. Improving road.
 Between 10/15-37-1-5. Improving road.
 North of 20 to 24-36-1-5. Grading road.
 Road east of Lacombe. Grading.
 In sec. 25-40-24-4. Repairing subway.
 Road south of Tp. 41-21-4. Improving.
 Between 19/20-41-1-5. Repairing road.
 Road from Lacombe to Iowalta. Repairs.
 Between 22/23-41-28-4. Improving road.
 Between 26/27-41-27-4. Repairing culverts.
 Road north of Leslieville. Construction.
 Road from Wabamun to Lac Ste Anne. Repairs.
 Road one mile west of Range line 53-6/7-5. Improving road.
 Road from Wabamun to Entwistle. Repairs.
 On range line Tp. 56-4/5-5. Grading road.
 Township line north of 55-4-5. Cutting out road.
 Between 23/24-25/26-55-6-5. Improving road.
 Between 15/16-21/22-27/28-55-6-5. Construction.
 On the west side of I. R. in 54-4-5 and south to Island Lake road. Constructing road.

Between 14/23-13/24-53-6-5. Constructing road.
 Road north and south of Roydale. Repairs.
 North of 7 to 10-55-3-5. Improving road.
 East of 23-26 & 35-54-4-5. Grading road.
 Road north and south of Cherhill. Repaired.
 South of 2-50-27-4. Repairing road.
 Between 11/12-50-28-4. Grading road.
 Between 12/13-49-25-4. Grading road.
 Between 7/18-50-26-4. Improving road.
 Road south of Diamond City. Culverts and repairs.
 North of Sec. 19 to 21-9-21-4. Repairing road.
 Road north of Diamond City. Repairing culverts.
 Road east of Barons. Repairs and putting in culverts.
 South of 2-11-21-4. Repairs.
 East of 3 to 22-14-22-4. Repairs to culverts and grade.
 North of 19 to 24-12-21-4. Repairs.
 North of Tp. 16-21-4. Repairs and culverts.
 Road north and south of Barons. Repairs and culverts.
 North of 19 to 24-12-21-4. Repairs.
 North of 7 to 12-14-22-4. Repairs and culverts.
 Road south of Carmangay. Grading.
 Road south from Queenstown. Culverts and grading.
 North of 22 and 23-14-22-4. Repairing road.
 Between 7/8-7-25-4. Grading road.
 On 29-9-26-4. Grading Willow Creek Hill.
 In 4-5 and 6-7-26-4. Constructing road.
 North of 32 and 33-6-25-4. Improving road.
 Between 21/22-6-26-4. Culverts and repairs.
 Road south of Monarch. Grading.
 Between 21/22-10-5-4. Grading road.
 Road south of Irvine. Repairs.
 Between 23/24-7-3-4. Grading road.
 Road north of Grayburn on Fourth Meridian. Grading.
 North of Tp. 10-2-4. Improving road.
 North of 22, 23 and 24, Tp. 7-3-4. Improving road.
 East of 25 and 36-7-3-4. Grading road.
 East of Tp. 12-5-4. Culverts and repairs.
 Road east of Coutts in Tp. 1-10-4. Culverts.
 Road west of Seven Persons. Culverts and repairs.
 Road south of Whittla. Grading.

Road north and south of Pashley. Repairs.
Road south of Seven Persons. Repairs.
Between 25/26-9-9-4. Culver's and grading.
Between 14/15-6-7-4. Culverts and repairs.
North of 7 to 12-6-7-4. Improving road.
Road from Medicine Hat to Seven Persons. Repairs.
On Range line in 11-9/10-4. Grading.
Between 16/17-11-8-4. Improving road.
East of 14 and 23-12-7-4. Culverts and repairs.
North of 19 to 24-12-3-4. Culverts and grading.
East of 5 to 32-10-9-4. Improving road.
Road north of Winnifred. Culverts and grading.
Between 3/4-9/10-11-8-4. Grading road.
Between 9/16-3-3-4. Improving road.
North of 7 to 12-12-3-4. Grading road.
Between 23/26-11-6-4. Grading road.
Between 22/23-26/27-7-8-4. Culverts and repairs.
North of 22 and 23-6-8-4. Grading road.
Road west of Stavely. Culverts and grading.
In 17-15-27-4. Grading road to bridge.
Between 31/32-16-29-4. Culverts and grading.
Trail from Calgary to Millarville. Culverts and grading.
Road south of Kew, Tp. 20-3/4-5. Improving.
Road up Sheep Creek Valley in Tp. 21-3-5. Grading.
Road west of Black Diamond. Grading.
North of 1 and 2-20-29-4. Culverts and grading.
In 1-20-2-5. Constructing subway and grading.
Between 2/3-20-28-4. Grading road.
Between 24/25-33-29-4. Improving road.
East of 7-18/19-33-1-5. Repairs to roads.
Road east of Bowden. Culverts and repairs.
North of Tp. 33 Rg. 28 and 29-4. Improving road.
Between 13/14-23/24-34-26-4. Repairs.
East of 3 to 34-32-27-4. Grading road.
North of 7 to 12, Tp. 33-28 and 29-4. Grading road.
Between 29/30-33-23-4. Grading road.
Between 20/21-33-1-5. Repairs.
Between 25/26-35/36-34-2-5. Improving road.
South-east of Bowden on Fifth Meridian. Grading.
South of 6-31-27-4. Grading road.
Between 3/4-34-4-5. Improving road.
Lake Saskatoon to Beaver Lodge River. Grading.
Between R. L. 16/17 Spirit River Settlement. Repairs.
Grand Prairie City to Smoky River. Repairs.
Between 12/13-73-5-6. Grading road.
North of 7 to 12-56-2 and 3-5. Improving road.
Road from Mosside to Wild Horse and south. Improving.
On range line Tp. 57-2/3-5. Grading road.
Road east of 2 to 35-59-4-5. Improving.
Between 24/25-60-1-5. Repairs.
Road east of 3 to 34-59-3-5. Improving.
Road from Belvedere to Wild Horse. Grading.
Between 34/35-56-1-5. Grading road.
Road from Pincher Creek to Oilfields. Repairs.
Road south of Fishburn. Repairs.
Road from Ponoka to Battle Lake. Grading.
Between 4/5-8/9-43-25-4. Grading road.
South of 6-42-2-5. Repairing road.
Road west of 1 to 36-42-28-4. Improving.
Road south of Ponoka in 42-25-4. Grading road.
Between 5/6 and 7/8-43-27-4. Grading road.
Between 4/5 and 8/9-44-25-4. Repairs.
Road west of Asker. Grading road.
Road east of 4 to 33-43-27-4. Repairs.
East of 29 and 32-43-27-4. Grading road.
Between 19/30-42-22-4. Grading road.
Between 3/4-43-23-4. Improving road.

Road east of west of Iola. Grading.
 Between 4/5-43-22-4. Grading road.
 Between 35/36-44-3-5. Repairs.
 Blind line east of Homeglen. Grading.
 Road on Range line Tp. 13-4/5-4. Culverts and repairs.
 Road on Tp. line south of 15-3-4. Culverts and grading.
 Road leading to Red Deer River Ferry at Dead Lodge Canyon. Grading.
 Between 4/5-8/9-38-23-4. Repairs.
 Road east of 3 to 34-38-5-5. Repairs.
 Road north and south of Provost. Grading.
 Road from Loughheed to Hardisty. Repairs.
 Road north and south of Czar. Repairs.
 Road on Blind line west of Amisk. Grading.
 North of 21 to 24-40-6-4. Improving.
 Road east of 4 to 28-42-10-4. Grading.
 Road north of Metiskaw. Improving.
 Between 13/14-39-4-4. Repairs.
 Road east of 3 to 34-37-3-4. Grading.
 Road west of Tp. 43-10-4. Grading.
 Road west of 18-43-9-4. Grading.
 Between 5/6-40-8-4. Grading.
 Road east of 2 to 35-39-7-4. Grading.
 Between 25/26-35/36-40-5-4. Improving.
 Between 28/29-39-5-4. Grading.
 Road south of Tp. 39-4-4. Grading.
 Road west of Tp. 38-3-4. Grading.
 Between 9/16-44-9-4. Grading.
 Between 25/36-7-3-5. Grading road.
 Road south-east of Burmis. Improving.
 Road west of Strome. Culverts and repairs.
 Road east of Strome. Culverts and grading.
 Road north of Killam. Improving.
 Road north of 7 to 12-44-12-4. Grading.
 Road east of Loughheed. Improving.
 Road east and west of Merna. Grading.
 Between 8/9-43-11-4. Improving road.
 Road in section 28 and 33-46-13-4. Grading.
 Between 19/30-40-11-4. Improving road.
 West of Section 6-42-14-4. Grading road.
 Between 2/3-47-13-4. Improving road.
 Between 2/3-47-11-4. Grading road.
 Range line west of 56-26-4. Repairs.
 Between 25-26-55-25-4. Grading road.
 Road east and west of Morinville. Repairs.
 Range line in Tp. 56-25/26-4. Grading.
 Road east of Tp. 58-24-4. Repairs.
 Between 28/29-56-26-4. Improving.
 Between 29/30-57-24-4. Grading.
 West of 7-54-25-4. Grading.
 Between 14/15-58-25-4. Improving road.
 Between 20/21-57-24-4. Grading road.
 Between 26/27-34/35-57-24-4. Grading road.
 Road east of 4 to 33-54-26-4. Repairs.
 North of 31 and 36-57-24 and 25-4. Grading.
 Between 13/18-58-24/25-4. Grading.
 Between 35/36-55-26-4. Repairs.
 South of Section 2-57-25-4. Improving.
 Between 35/36-58-24-4. Grading.
 Between 12/13-57-25-4. Improving.
 Elk Point Ferry in 56-6-4. Grading approach.
 Road from St. Paul de Metis to Moose Lake. Grading.
 Road north of 7 and 8-58-8-4. Repairs.
 Between 9/16-8/17-61-5-4. Grading road.
 Road west of Frog Lake, I.R. through 57-4-4. Grading road.
 Road east of Section 12-58-9-4. Grading.
 Between 1/2-61-6-4. Improving road.
 North of 10-11 and 12-61-6-4. Grading road.

Between 18/19-58-9-4. Repairs.
North of Tp. 60-9-4. Improving road.
West of 17 to 32-58-8-4. Grading road.
North of 31-55-3-4. Repairs.
Road south of Cold Lake I. R. Clearing and grading.
Road north of Tp. 62-1 and 2-4. Clearing and grading.
Blind line north of 18 to 13-63-2-4. Clearing and grading.
South of 2 to 5-61-6-4. Clearing and grading.
West of Tp. 56-3-4. Clearing and grading.
Road east of Lake Laurier. Clearing.
Road north of Tp. 54-2-4. Grading.
Road north of Cold Lake Ferry. Improving.
Between 10/11-61-6-4. Clearing and grading.
Between 17/18-61-5-4. Clearing road.
On range line Tp. 61-5/6-4. Clearing road.
Between 23/24-58-8-4. Repairs.
Between 24/25-55-4-4. Improving road.
West of 19-30-31-57-4-4. Grading road.
Road east of Stettler. Improving road.
Nevis to Buffalo Lake. Repairs.
Road north of Halkirk. Repairs.
Between 26/27-39-15-4. Culverts and grading.
Road from Stettler to Gopher Head. Culverts and grading.
Road south-east of Stettler through 38-19-4. Repairs.
Between 29/30-39-18-4. Grading.
Road from Scollard to Gopher Head. Culverts and repairs.
Between 31/32-51-1-5. Clearing road.
Between 13/14-23/24-53-27-4. Repairs.
On Tp. line 51/52-26-4. Clearing road.
North of 22, 23 and 24-52-7-5. Clearing and grading.
Road east and south of 36-65-23-4. Grading.
Road from Bon Accord to St. Emile. Repairs.
Road from Jaffrey north-east to Landing Trail. Grading.
North of 7 & 8-58-23-4. Repairs.
Road north of Tp. 59-24-4. Improving.
Between 1/2-59-19-4. Grading road.
Between 4/5-58-21-4. Improving road.
Between 7/8-57-23-4. Grading road.
South of 3 and 4-58-22-4. Grading road.
North of 19 to 24-58-23-4. Grading road.
North of Tp. 57-20-4. Repairing road.
North of Tp. 58-18-4. Grading road.
Between 17/18-19/20-57-23-4. Improving road.
North of 7, 8 and 9-59-19-4. Repairing road.
Between 19/30-57-23-4. Grading road.
Road north-west from Radway Centre. Improving.
Between 14/15-22/23-58-24-4. Clearing road.
Road east of 28 and 33-58-18-4. Improving.
East of 18 to 31-58-23-4. Grading.
At Nestor Siding, 6-61-24-4. Grading.
Road on Correction line 58/59-20 and 21-4. Improving.
Between 14/15-59-19-4. Clearing road.
North of 7, 8, 9-60-19-4. Improving road.
Between 3/4-9/10-60-24-4. Clearing road.
North of Tp. 5-22-4. Repairing road.
Between 1/2-11/12-8-21-4. Culverts and repairs.
Road from Lethbridge to Coaldale. Culverts and repairs.
Between 14/15-22/23-8-21-4. Grading road.
North of 23 & 24-6-20-4. Grading road.
North of 9 to 12-6-19-4. Culverts and repairs.
South of Tp. 9 Rg. 19 and 20-4. Improving road.
Road north and south of Grassy Lake. Culverts and grading.
West of 25 and 36-9-21-4. Culverts and grading.
Between 19/30-6-19-4. Grading road.
Road east of Raymond. Improving.
Between 19/30-12-20-4. Grading and filling.
Road west of Bow Island. Culverts and repairs.

North of 23 and 24-8-21-4. Grading road.
 North of 21 to 24-9-21-4. Culverts and repairs.
 Between 8/9-16-20-4. Repairs.
 West of 14 to 26-9-21-4. Grading road.
 Between 1/2-7-21-4. Grading road.
 South of 1, 2 and 3-13-18-4. Grading road.
 Between 32/33-9-11-4. Culverts and repairs.
 South of 3 and 4-14-18-4. Grading road.
 North of 10, 11 and 12-8-21-4. Culverts and grading.
 Between 19/20-13-19-4. Grading.
 West of 4 to 33-14-16-4. Culverts and grading.
 East of 31-14-16-4. Grading.
 Between 2/3-14-18-4. Grading.
 Between 3/4-14-18-4. Culverts and grading.
 West of 7-10-13-4. Grading.
 West of 11 to 26-13-16-4. Culverts and grading.
 Between 5/6-52-15-4. Improving road.
 Road from Ryley to Bardo. Grading and Culverts.
 Blind line road west of Vegreville. Grading.
 Road east from between 7/18-53-14-4. Repairs.
 Road east of Holden. Culverts and grading.
 Blind line road west of Ranfurly. Grading.
 Between 9/10-51-9-4. Grading road.
 On 2-51-11-4. Repairs.
 Between 7/18-54-10-4. Improving road.
 Road south-east of Chailey. Repairs.
 Road from Phillips to Kinsella. Grading.
 Road north of 8 to 11-54-10-4. Grading.
 Road south from Grizzly Bear Coulee 49-6/7-4. Culverts and grading.
 North of 9 and east of 4 and 9-55-10-4. Grading.
 Road north of 50-10-4. Culverts and repairs.
 Road south of Tp. 55 Rg. 9, 10 and 11-4. Grading.
 Between 15/16-54-10-4. Grading.
 Between 32/33-49-8-4. Culverts and repairs.
 North of 3 and 4-51-11-4. Improving road.
 South Victoria Trail. Repairs.
 East of 18 to 31-54-20-4. Culverts and repairs.
 North of 7 to 9-55-20-4. Grading road.
 Road north from Lamont. Improving.
 Road from Wostak to Chipman. Corduroy and grading.
 Between 2/3-57-16-4. Improving road.
 Between 25/26-54-21-4. Grading road.
 Between 16/17-20/21-54-21-4. Grading road.
 Between 33/34-56-20-4. Improving road.
 North of 35-55-21-4. Corduroying and grading.
 Between 31/32-56-18-4. Grading road.
 North of 20 to 24-55-16-4. Grading road.
 West of 31, Tp. 55-16-4, and west of 6-57-16-4. Putting in corduroy and grading.
 Between 15/16-33/34-55-21-4. Corduroy and grading.
 Between 28/29-32/33-54-20-4. Grading road.
 Between 1/2-56-17-4. Grading road.
 Between 11/12-13/14-57-17-4. Grading road.
 Between 6/31-57/58-18-4. Corduroy and grading.
 Between 3/4-58-16-4. Improving road.
 Between 12/13-11/14-58-19-4. Grading road.
 Between 29/30-55-17-4. Corduroy and grading.
 Between 20/21-56-18-4. Improving road.
 Between 31/36-56-17/18-4. Repairing road.
 Between 33/34-55-18-4. Grading road.
 Between 4/5-58-16-4. Grading road.
 Road south of ferry 21-56-21-4. Clearing.
 Between 1/2-11/12-57-18-4. Grading road.
 Between 35/36-47-8-4. Culverts and grading.
 Between 21/28-44-5-4. Grading road.
 Road east and west of Warner. Grading.
 Road from Warner to Milk River. Grading.

Road north of Tp. 3-14 and 15-4. Grading.
 Road east of Milk River Station. Culverts and grading.
 Between 7/18-6-18-4. Improving road.
 Between 27/28-33/34-3-12-4. Grading.
 Road west of Warner. Repairing grade and culverts.
 Road east of Coutts. Culverts and grading.
 Road north of Warner. Culverts and grading.
 Between 4/5-20/21-27/28-3-16-4. Grading road.
 Road north of 20 and 21-3-17-4. Clearing and grading.
 Between 17/20-4-15-4. Grading road.
 Between 3/4-4-17-4. Grading road.
 North of 31-2-11-4. Repairing road.
 Between 14/15-34/35-3-12-4. Grading road.
 Between 1/2-4-18-4. Grading road.
 Between 28/29-32/33-3-17-4. Repairing road.
 In 16 and 21-5-11-4. Grading coulee.
 Between 25/30-3-11/12-4. Grading road.
 Road north of Foremost. Grading coulee.
 Between 3/4-9/10-5-11-4. Improving road.
 Between 4/5-8/9-3-11-4. Grading road.
 Road east of New Dayton. Grading.
 East of 28 and 33-2-16-4. Grading road.
 East of 20 and 29-2-15-4. Grading road.
 Between 19/20-2-15-4. Grading road.
 West of 16 and 21-3-12-4. Grading road.
 North of 35-2-16-4. Culverts and grading.
 Between 29/30-3-17-4. Improving road.
 Between 19/20-3-11-4. Grading road.
 Between 22/23-4-12-4. Grading road.
 Between 21/22-4-12-4. Repairing road.
 Between 13/14-3-12-4. Grading road.
 South of Section 2-2-16-4. Grading road.
 South of 26 to 29-46-25-4. Repairing road.
 From Wetaskiwin southeast to Battle River. Grading road.
 South of Tp. 47-25-4. Grading road.
 Wetaskiwin to Coal Lake. Repairing road.
 Road north-west from Bear Hills Lake. Repairs.
 Between 23/24-46-3-5. Grading road.
 Between 9/10-45-28-4. Grading road.
 North and east of 19-47-26-4. Grading road.
 Road north of Warwick. Grading.
 Road from Whitford to Shandro. Repairs.
 West of 7-58-14-4. Grading road.
 Road east and west of Vermilion. Grading.

TRUNK ROADS

During 1913 Trunk road construction was undertaken on the following main roads:

Road west from Chinook.
 Road north from Cereal.
 Road north from Youngstown.
 Road south of Lloydminster on the Fourth Meridian.
 Road north of Lloydminster on the Fourth Meridian.
 Road from Moose Ferry to Landonville.
 Road from Lloydminster to Vermilion.
 Road from Athabasca Landing to Lake Wabiscaw and Fort Vermilion.
 Road from Athabasca Landing to Lake Baptiste.
 Road from Old House to Fort McMurray.
 Road from Athabasca Landing to Lesser Slave Lake.
 Road from Edmonton to Athabasca Landing.

Road from Fort McMurray to Lac La Biche.
 Road from Athabasca Landing to Lac La Biche.
 Road from Athabasca Landing towards Pelican Rapids.
 Road from Victoria to LacLaBiche.
 Road from St. Paul de Metis to St. Vincent.
 Road from St. Paul de Metis to Brosseau.
 Road from Clarkville west.
 Road south-east from Clarkville.
 Road from Gleichen to Cluny.
 Road from Bassano to Hutton and Fieldholm.
 Road from Brooks south-west to ferry.
 Road east from Cluny.
 Road from Bassano to Bow River Bridge.
 Road from Calgary to Morley, north of the Bow River.
 Road from Calgary to Edmonton.
 Road from Calgary to Macleod.
 Road from Calgary to Millarville.
 Road from Bashaw to Donalda and Battle River.
 Road from Daysland south.
 Road from Ohaton north.
 Road from Camrose north.
 Road from Daysland north.
 Road from Camrose south.
 Road from Bawlf north.
 Road east and west of Camrose.
 Road from Camrose north-west.
 Road from Macleod to the International Boundary.
 Road Lethbridge to Raymond and Magrath.
 Road north-east of Magrath.
 Road north of Glenwood.
 Road from Macleod to Lyndon.
 Road from Macleod-Lyndon Trail to Meadow Creek.
 Road from Stavelly to Willows.
 Road from Edson to Grand Prairie.
 Road from Riviere Qui Barre to Lac La Nonne.
 Road from Calgary to Morley, south of Bow River.
 Road east and west of Crossfield.
 Road north-west of Airdrie.
 Road south of Crossfield.
 Road west of Didsbury.
 Road east and west of Elkton.
 Road from Rosebud to Fallen Timber Creek.
 Road from Three Hills to Red Deer River.
 Road from Carbon to Red Deer River.
 Road from Twining to Red Deer River.
 Road from Edmonton to Saskatchewan Boundary following Telephone
 Line and G. T. P. Railway.
 Road along Saskatchewan River around Edmonton Riverside Drive.
 Road north of Peers to Macleod River.
 Road from Tollerton to Edson.
 Road from Dandurand to Marlboro.
 Road from Airdrie to Irricana.
 Road east and west of Beiseker.
 Road from Calgary to Gleichen.
 Road from Lesser Slave Lake to Peace River Landing.
 Road from Lesser Slave Lake to Spirit River.
 Road from Whitefish Lake to Grouard.
 Road from Lesser Slave Lake to Sturgeon Lake.
 Road from Sawridge to Grouard, south of Lake.
 Road east of Morin.
 Road east and west of Flowerdale.
 Road east of Munson.
 Road west and north of Hanna.
 Road south of Craigmyle.
 Road south of Hanna.
 Road from Craigmyle to Gadsby.
 Road west of Morrin to Red Deer River.

Road west of Munson to Red Deer River.
 Road from Penhold to Lousana.
 Road from Innisfail to Perbeck and east.
 Road from Innisfail to Clearwater River.
 Road from Eckville to Gilby and Wittenberg.
 Road west of Bentley.
 Road east of Lacombe.
 Road from St. Albert to Lac Ste. Anne.
 Road from Lac Ste. Anne to Whitecourt.
 Road north of Junkins.
 Road south of Entwistle.
 Road south from Rich Valley.
 Road north of Fallis.
 Road east of Leduc.
 Road west of Leduc.
 Road east and west of Stones Corners.
 Road from Lethbridge to Macleod.
 Road east of Carmangay.
 Road south of Macleod.
 Road from Macleod to Orton.
 Road from Medicine Hat to Josephburg.
 Road from Irvine to Josephburg.
 Road from Walsh to Grayburn.
 Road from Medicine Hat to Medicine Lodge and south.
 Road south-west of Irvine.
 Road north of Whitlea.
 Road south of Medicine Hat.
 Road north of Irvine.
 Road south of Winnifred.
 Road south of Seven Persons—East road.
 Road south of Seven Persons—West road.
 Road from Minda to Cypress Hills.
 Road west of Pakowski Lake.
 Road from Nanton south-west.
 Road west of Nanton.
 Road west of Olds.
 Road east of Olds.
 Road east and west of Trochu.
 Road north-east of Trochu.
 Road west of Bowden.
 Road from Peace River Landing to Dunvegan.
 Road from Dunvegan to Grand Prairie.
 Road from Fort Vermilion to Hay River.
 Road on Base Line east and west of Edson.
 Road north of Rich Valley.
 Road north of Onoway.
 Road east and west of Clyde.
 Road from Edmonton to St. Albert and north.
 Road from Belvedere to Mosside.
 Road east of Ponoka.
 Road west of Ponoka.
 Road west of Bashaw.
 Road from Medicine Hat to Stair.
 Road north of Carlstadt.
 Road south and east of Carlstadt.
 Road north of Larmour.
 Road east of Carlstadt.
 Road north-east of Medicine Hat.
 Road east of Red Deer.
 Road from Red Deer west via Sylvan Lake.
 Road from Red Deer west via Evarts.
 Road from Hardisty to Rosyth and east.
 Road south from Hardisty.
 Road north and south of Amisk.
 Road from Lundbreck to Frank.
 Road from Frank to the Crow's Nest Pass.

Road north from Viking.
 Road south from Strome.
 Road south from Sedgewick.
 Road south-west of Lougheed.
 Road south of Ranfurley.
 Road north of Strome.
 Road north of Sedgewick.
 Road south of Killam.
 Road from St. Albert to Lac Ste. Anne.
 Road north and south of Inga.
 Road on Correction line north of St. Albert.
 Road east of Seymour.
 Road east and west of Legal.
 Road from Edmonton to St. Albert and north.
 Road from St. Paul de Metis to St. Edouard.
 Road from St. Paul de Metis to Brosseau.
 Road from Frog Lake to Onion Lake.
 Road from Frog Lake to Beaver River.
 Road north of Moose Telegraph Station.
 Road from Moose Telegraph Station to Frog Lake.
 Road from Elk Point to St. Paul de Metis.
 Road from Stettler to Buffalo Lake.
 Road from Stettler to Drumheller.
 Road from Stettler to Donalda.
 Road east and west of Stettler.
 Road south of Castor.
 Road south of Gadsby.
 Road from Edmonton to Graminia.
 Road from Seba to Tomahawk.
 Road south of Entwistle.
 Road north and south of Duffield.
 Road from Edmonton to Entwistle.
 Road west of Edmonton, Alberta Avenue.
 Road from Edmonton to Fort Saskatchewan.
 Road north of Lamoreux.
 Road from Edmonton to Fedora.
 Road north from Pine Creek.
 Road east and west of Waugh.
 Road from Colinton to Flat Lake.
 Road north from Lobstick Settlement.
 Road north-east from Pine Creek.
 Road from Cookville north through Radway Centre.
 Road from Lethbridge to Cardston.
 Road from Raymond to Magrath.
 Road from Stirling to Lethbridge.
 Road north of Raymond.
 Road east of Stirling.
 Road north of Taber.
 Road from Coaldale to Iron Springs and north.
 Road south of Stirling.
 Road north of Bow Island.
 Road south of Burdette.
 Road from Lethbridge to Bow Island.
 Road from Tofield to Chipman.
 Road from Holden south.
 Road from Vegreville to Bruce and Strome.
 Road south of Mundare.
 Road from Vegreville to Brosseau.
 Road from Chipman to Ranfurley.
 Road north of Innisfree.
 Road north of Manville.
 Road north of Vermilion.
 Road south of Manville.
 Road north of Ranfurley.
 Road south of Fort Saskatchewan.
 Road from Mundare to Victoria.
 Road from Fort Saskatchewan to Andrew.

Road north of Bruderhiem.
Road east from Lamont.
Road from Wainwright to Vermillion.
Road north of Heath.
Road east of Wetaskiwin.
Road from Millet to Bonnie Glen and Fisher Home.
Road from Wetaskiwin to Buck Lake.
Road east of Desjarlais.
Road north from Victoria.
Road north of Shandro Ferry.
Road south-west of Desjarlais.

ARCHITECTURAL & BUILDING CONSTRUCTION BRANCH

Staff.....	{ Architect { Assistant Architect { Chief Draftsman { Six Draftsmen { One Quantity Surveyor { One Clerk { One Stenographer { One Messenger
------------	---

I have the honour to report on the work of the Architectural and Building Construction Branch for the year 1913 as follows:—

The work undertaken was of a most important nature, entailing considerable and careful thought in the design and preparation of working drawings and specifications, and carrying to a successful conclusion buildings of such varied characters as are enumerated below, with the work of letting contracts, preparing estimates in connection with same, purchasing of building supplies, and the supervision of buildings during their erection.

In the work of supervision I have been considerably aided by the services of a competent general building superintendent, relieving me of a good deal of important out-door work, and he being in close touch with the preparation of the drawings in drafting room has been better able to properly supervise work on the buildings. I have also given considerable time to this work myself, especially with reference to decorating and furnishing the buildings, and a good deal of office time has been given to the interview of contractors and building supply salesmen, checking of estimates, etc., besides the purely architectural work of designing and supervising working drawings in preparation.

In connection with architectural work it has been our endeavour to design buildings of simple yet dignified character, giving due attention to economical construction and with a view of obtaining the maximum of accommodation for the minimum of cost.

For ease of reference I have divided the details of this report into two headings, viz., Architectural Work and Construction Work.

ARCHITECTURAL WORK

PARLIAMENT BUILDINGS:

Most of the architectural work on this building had been completed previously, but certain necessary full sized details and other drawings were required in connection with the completion of the marble and ornamental plaster work of the rotunda.

GOVERNMENT HOUSE:

Complete and final drawings were prepared as required for the final completion of this work, and considerable consideration given to details submitted in connection with special furnishings, electric lighting fixtures and other special work.

GOVERNMENT HOUSE GARAGE AND STABLES:

Final drawings were prepared for the completion of this building as required.

CALGARY COURT HOUSE:

All necessary designs and drawings were prepared for the final completion of this building, and consideration and approval given of designs submitted for special work, such as electric lighting fixtures, etc.

AGRICULTURAL SCHOOLS AT OLDS, CLARESHOLM AND VERMILION:

Final drawings were prepared for the completion of these buildings, including details of water supply and sewerage disposal, and details for special fittings required in chemical laboratories and domestic science rooms.

LAND TITLES BUILDING, EDMONTON:

Designs and drawings were completed for this building and details of steel and other furnishings necessary to equip the building were prepared.

LETHBRIDGE JAIL:

Plans were prepared for erection of dormitory building for guards, providing for accommodation of twenty guards, with necessary dining and recreation rooms.

NORMAL SCHOOL, CAMROSE:

A number of sketch designs and perspectives were prepared in connection with this building, and after design was finally approved, complete working drawings and details with specification were prepared as required to complete the building.

GARAGE BUILDING, CALGARY:

Plans and designs were prepared for this building, as an addition to the heating building in rear of Court House.

In addition to the above a number of preliminary designs and perspectives were prepared for various buildings contemplated in the future.

CONSTRUCTION WORK

The work under construction on the various buildings during the year progressed favourably, a special effort being made to complete as

much of the work on hand as possible. The work on the various buildings in detail being as follows:—

PARLIAMENT BUILDINGS:

The majority of the marble work and ornamental plaster in main entrance, rotunda and staircase was erected during the year. Final completion of construction work on the building taking place in time for opening of the Legislative Assembly in September.

COURT HOUSE, CALGARY:

Construction work on this building, including final completion of marble and tile work, plumbing and steam fittings, ventilation, electric wiring and plastering, and also a portion of the finish wood-work. The work being carried to a measurable distance of completion before the close of the year.

LAND TITLES BUILDING, EDMONTON:

Construction work on this building, including the erection of masonry walls, erection of structural steel and reinforced concrete floors and roof, construction of terra cotta partitions and furring, installation of plumbing and heating, electric lighting fixtures, iron stairs and ornamental iron work in connection with same, marble and tile work, laying of linoleum floor coverings, with installation of a portion of steel fittings for the equipment of the building. Construction work was almost completed before the close of the year.

GOVERNMENT HOUSE:

The work on this building included all the necessary finish work such as plastering, electric wiring, installation of lighting fixtures, laying and finishing of hardwood floors, completion of plumbing and heating, and installation of fixtures, installation of elevator and dumb waiter, marble and tile work, painting, decorating and all other work necessary for occupation, including furnishing, in November.

GOVERNMENT HOUSE GARAGE AND STABLES:

The work on this building included the construction of brick and tile walls, all floors, roofing, plastering and external stucco work, electric wiring and installation of fixtures, plumbing and heating, and all other work necessary to finally complete the building.

AGRICULTURAL SCHOOLS AT OLDS, CLARESHOLM AND VERMILION:

Construction work on these buildings was finally completed in time for the opening ceremonies in November, and included plastering, installation of plumbing and heating, hardwood floors, electric wiring and installation of electric fixtures, painting, decorating, etc., and also the installation of part of the equipment required in domestic science room and chemical laboratory. The work at these points also included installation of water supply, drainage system and sewerage disposal plant, and at Olds the installation of electric lighting plant.

NORMAL SCHOOL, CAMROSE:

Tenders were called and contracts awarded for the excavation, concrete work in basement and general work at this building. The work being commenced and carried up as far as possible until the cold weather. The excavation and concrete work being completed and the building erected to the height of first story. Steel work and terra cotta tile floors being placed in position. The work then being closed down during the winter.

GARAGE BUILDING, CALGARY:

Construction work on this building was commenced and completed, including excavation, concrete work, masonry, walls, electric wiring, etc.

I have the honour to be, Sir,

Your obedient servant,

RICHARD P. BLAKEY,
Provincial Architect.

Deputy Minister, Department of Public Works.

SURVEYS BRANCH

EDMONTON, ALTA., Dec. 31st, 1913.

JOHN STOCKS, ESQ.,

Deputy Minister of Public Works,

Edmonton, Alta.

SIR,—I beg to submit the following report in connection with the work of the Surveys Branch for the year 1913. The summary given below shows, as compared to previous years, that a large amount of work was accomplished. This was due partly to the fact that the season was, generally speaking, a favourable one for work, and partly to increase in our outside staff.

Mr. A. G. Stewart, D. & A. L. S., was appointed as a District Surveyor early in the year and took charge of a district in the centre of the eastern portion of the Province. In spite of efforts in the past to keep even with the work the increase in settlement and corresponding increase in demands for surveys has found us at the close of each season a little further behind than the year previous. I am pleased to say, however, that this year we have made an appreciable gain on the outstanding work, as will be seen by consulting the summary given below.

This year, parts of the more settled districts of the Province became organized into Rural Municipalities with greater powers than Local Improvement Districts. These Municipalities may eventually attend to surveys for themselves, but for the present we still continue to make

the surveys required by the Municipal authorities. It is left to them, however, to arrange questions of compensation for lands taken themselves.

Notwithstanding the apparent falling-off in real estate dealings during this year, the work of approving subdivision plans continued fairly heavy all season, and owing to a change in regulations which takes effect January 1st, 1914, the work during the latter part of December in this line has been exceptionally heavy.

In pursuance of an arrangement made between the Governments of the Provinces of Alberta and British Columbia and the Government of Canada, a survey to establish the boundary line between the two Provinces and mark the same permanently in the principal mountain passes was commenced this year. The work is being carried on by a commission of three surveyors, one appointed by each Government. Mr. R. W. Cautley, D. & A. L. S., was appointed commissioner for Alberta. The work has been completed in the Kicking Horse Pass, the Vermilion Pass and the Simpson Pass, and partly completed in the Crows Nest Pass.

I have the honour to be, Sir,

Your obedient servant,

L. C. CHARLESWORTH,

Director of Surveys.

SUMMARY

Surveys required and brought forward from 1912	680
Surveys asked for during 1913	700
Surveys made during 1913	655
Surveys asked for but found unnecessary on examination	158
Surveys carried over to 1914 schedule	567
Miscellaneous examinations made during the season	93
Surveys made without instructions (included in above figures).....	126
Plans prepared and filed in Land Titles Office	454
Certificates of Title received for roads	521
Certificates of Title received for building sites	1
Certificates of Title received for land other than surveyed roads (gravel pit)	-
Transfers issued covering roads no longer required	161
Amount paid as compensation for right-of-way, etc.	\$18,582.38

LEASE OF ROAD ALLOWANCES

Number of new applications to lease road allowances	35
Number of new applications granted	3
Number of new applications not granted at close of year	32
Number of leases granted during 1913, including free leases issued as compensation for surveyed roads	143
Amount received as rental for leased roadways	\$249.00

SUMMARY OF WORK DONE IN THE VICINITY OF EDMONTON UNDER DIRECTION FROM THE OFFICE.

NEW ROADS

New Road through sections 14, 15 and into 16-50-1-b.
 New Road through section 4 and S. E. 9-47-26-4.
 New Road through sections 2, 3, 9, 10 and 16-49-20-4.
 New Road into sections 13, 14, 23 and 27-49-20-4.
 New Road through section 19-51-22-4.
 New Road through section 32 and into 33-51-26-4.

New Road into section 35-51-26-4.
 New Road across section 12-53-6-5.
 New Road north of sections 13/18-53-5 and 18-53-4-5.
 New Road north of sections 13 and 14-53-6-5.
 New Road through sections 7, 17 and 18-53-5-5.
 New Road north of north-west quarter section 18-54-26-4.
 New Road through sections 17, 20, 29 and 32-51-24-4.
 New Road through south-west 8-52-24-4.
 New Road through section 35-46-24-4 and township 47-24-4.
 New Road through sections 25, 34, 35 and 36-46-3-5.
 New Road north and through sections 2 and 11-47-3-5.
 Re-establishing new road 25/36-55-24 and 31-55-23-4.

PRIVATE ROADS.

Connecting S. W. $\frac{1}{4}$ with N. E. $\frac{1}{4}$ section 32-48-1-5
 Through fractional sections 17 and 18-51-24-4 in Papachase Indian
 Reserve, connecting with C. and E. Trail in section 17-51-24-4.

ROAD DIVERSIONS.

Diversion in N. E. 36-51-25-4 and S. E. 1-52-25-4.
 Diversion into sections 1, 2 and 12-50-27-4.
 Diversion into sections 1-50-27-4 and 36-49-27-4.
 Diversion in N. E. 12-50-27-4.
 Diversion in N. E. 19-47-26-4.
 Diversion in N. E. 9-47-27-4.
 Diversion in S. W. 16-47-27-4.
 Diversion in N. W. $\frac{1}{4}$ 11-47-24-4.
 Diversion in S. E. 8-47-23-4.
 Diversion in N. E. 4 and S. E. 9-47-23-4
 Diversion in 14/15-47-24-4
 Diversion in 20-48-21-4.
 Diversion in N. E. 7-53-27-4.
 Diversion in E. $\frac{1}{2}$ 14-53-1-5.
 Diversion in N. E. 3-54-1-5.
 Diversion in S. E. 3-54-1-5.
 Diversion in S. E. 11-53-1-5.
 Diversion in 22/23-52-1-5.
 Diversion in 34/35-52-1-5.
 Diversion in E. of section 15-52-2-5.
 Diversion in N. E. 10-52-2-5.
 Diversion into 1, 7 and 12-51-3/4-5.
 Diversion in N. W. 30-52-5-5.
 Diversion in sections 5/6-55-2-5.
 Diversion in $\frac{1}{2}$ section 10-55-2-5.
 Diversion into sections 2, 4 and 5-55-1-5 and sections 34-54-1-5.
 Diversion into sections 8 and 17-55-24-4.
 Diversion into sections 11/14-47-2-5.
 Diversion into S. W. 2-48-24-4.
 Diversion into sections 9, 10 and 15-47-23-4.

CHANGES IN SURVEYS

Changed survey in S. E. $\frac{1}{4}$ section 2-50-2-5.
 Changed survey in W. $\frac{1}{2}$ section 24-51-26-4.

EXAMINATIONS.

Examination of road allowance south-west section 6-51-25-4.
 Examination of road allowance north-west section 11-52-25-4.
 Examination of road allowance north of sections 29 and 30-49-2-5.
 Examination of road allowance east of section 4-49-1-5.
 Examination of road allowance north of section 35-48-21-4.
 Examination of road allowance east of section 25-52-2-5.
 Examination of road allowance sections 11/12 and 13/14-52-1-5.

Examination of road allowance between sections 22/27-53-1-5.
 Examination of road allowance east of section 35-51-3-5.
 Examination of road allowance from Townsite of Fallis west.
 Examination of road allowance in section 9/10-54-19-4.
 Examination of road allowance north of section 19/21-52-18-4.
 Examination of road allowance on C. and E. Trail, section 13/24-50-25-4.

EDMONTON, December 31st, 1913.

L. C. CHARLESWORTH, ESQ.,

Director of Surveys.

Edmonton, Alta.

SIR,—I have the honour to submit the following report with regard to the work performed by myself and party in the Public Works District of North Alberta.

I received my appointment as District Surveyor and Engineer for a section of North Alberta on April 1st. I organized my party and took the field on April 28th. The first half of the season was spent along the Pembina River between Wildhorse and Sunieband, then north and north-west along the Klondike Trail across the Athabasca River as far as the Freeman River. During the latter part of the season I worked over the country between Lac Ste. Anne and Whitecourt and then along the G. T. P. west of Edmonton as far as Chip Lake. As the trails in this part of the country are not of the best, the difficulties of transportation are numerous, however, I managed to cover almost all of my district this season.

Attached herewith you will find a detailed report of my season's work under the heads of New Roads, Diversions, Changes in Surveys, and Examinations.

Your obedient servant,

E. D. ROBERTSON,

District Surveyor and Engineer.

NEW ROADS.

New road in sections 22, 27 and 28, township 59-2-5.
 New road in sections 6, 1, 2 and 3, township 60-1/2-5.
 New road in sections 10 and 15, township 61-27-4.
 New road in sections 13, 24, 23, 22, 15, 16, 17 and 8, township 60-1-5.
 New road in sections 32 and 33, township 59-3-5.
 New road in sections 13, 14, 23 and 22 township 60-4-5.
 New road in sections 15 and 22, township 59-3-5.
 New road north of sections 25 to 29, township 57-9-5.
 New road in sections 20/21, 22 and 26, township 59-12-5.
 New road north of section 17, township 57-7-5.
 New road north of sections 1, 2 and 3, township 56-5-5.
 New road in sections 16, 17 and 18, township 53-9-5.
 New road in sections 34, 35 and 36, township 53-10-5.
 New road in section 21, township 56-1-5.
 New road in sections 17, 20 and 21, township 59-2-5.
 New road in sections 4, 5 and 6 township 60-3-5.
 New road in sections 19, 20, 30, 31 and 18, township 58-2-5, and section 13, township 58-3-5.
 New road in sections 7, 13 and 24, township 54-6/7-5.
 New road in sections 6, 7, 12, 13, township 57-5/6-5.
 New road from section 28, township 60-4-5 to section 18, township 62-6-5.

DIVERSIONS.

Diversion in N. W. $\frac{1}{4}$ section 33, township 57-27-4.
 Diversion in sections 27 and 34, township 56-1-5.
 Diversion in N. W. $\frac{1}{4}$ section 22, township 56-2-5.
 Diversion in sections 35 and 2, townships 57 and 58-3-5.
 Diversion in sections 7 and 12, township 59-3/4-5.
 Diversion in sections 17 and 18, township 59-3-5.
 Diversion in south $\frac{1}{2}$ section 6, township 59-3-5.
 Diversion in sections 22 and 27, township 60-1-5.
 Diversion in the S. E. $\frac{1}{4}$ section 23, township 57-5-5.
 Diversion in $\frac{1}{2}$ section 9, township 53-7-5.
 Diversion in sections 28, 29 and 32, township 52-7-5.
 Diversion in west $\frac{1}{2}$ section 34, township 53-9-5.
 Diversion in west $\frac{1}{2}$ section 22, township 58-3-5.
 Diversion in north $\frac{1}{2}$ section 31, township 57-2-5.
 Diversion in sections 13 and 14, township 59-4-5.
 Diversion in sections 2 and 3, township 60-3-5.
 Diversion in south $\frac{1}{2}$ section 27, township 60-3-5.
 Diversion in S. E. $\frac{1}{4}$ section 25, township 60-4-5.
 Diversion in sections 9 and 10, township 62-6-5.
 Diversion in S. E. $\frac{1}{4}$ section 17, township 57-7-5.
 Diversion in S. W. $\frac{1}{4}$ section 30, township 53-7-5.
 Diversion in south $\frac{1}{2}$ section 3, township 57-1-5.

CHANGES IN SURVEYED ROADS.

Change in survey in S. W. $\frac{1}{4}$ section 11, township 58-3-5.
 Change in survey in S. W. $\frac{1}{4}$ section 18, township 58-2-5.
 Change in survey in W. $\frac{1}{2}$ section 11, township 58-3-5.

EXAMINATIONS.

Examination of road allowance east of section 5-58-27-4.
 Examination of road allowance east of section 32-56-1-5.
 Examination of quarter section line across section 18, township 59-4-5.
 Examination across north of sections 25 to 30, township 58-7-5.
 Examination of road allowance east of section 28, township 52-7-5.
 Examination of old trail across section 30, township 53-8-5.
 Examination of winter trail across section 33, township 52-7-5.
 Examination for new road across township 58-4-5.

LETHBRIDGE, ALTA., December 30th, 1913.

JOHN STOCKS, ESQ.,

Deputy Minister of Public Works,

Edmonton, Alta.

SIR,—I have the honour to submit the following report respecting the work performed by my party and myself during the year 1913.

My party remained in the field until the 22nd of January, when the weather became so severe that we had to cease general field work for the winter. However, we were able to do some work in the field that was near to railways, and by the 2nd of April, when my party again went into the field, I had things in fairly good shape for the season's work.

I commenced work in the vicinity of Stirling, where my party stopped in January, and continued south and east through ranges 16, 17, 18 and 19 west of the Fourth Meridian to Coutts on the International Boundary Line, thence east through township 1, ranges 14, 13 and 12.

My plan was to clear off all necessary surveys in that vicinity and return through the country northward, covering the country east of Stirling to the east limit of my district and as far north as Belly River; but I received instructions from L. C. Charlesworth, Director of Surveys, to return to the Porcupine Hills, where there were a considerable number of important surveys to be made. We left the vicinity of Coutts on July 3rd, and moved into township 7, range 28 west of the 4th Meridian, where we again took up field work, and continued through townships 7 and 8, ranges 29 and 30 west of the 4th Meridian, and range 1 west of the 5th Meridian. I then sent my party into township 10, range 3, west of the 5th Meridian near the gap of the North Fork River, where we surveyed a road from the east boundary of section 33, township 10, range 3 west of the 5th Meridian to the east boundary of section 2, township 10, range 2, west of the 5th Meridian. We completed other surveys in townships 9 and 10, ranges 2 and 3 west of the 5th Meridian until a snowstorm along the foot of the Livingstone range made it difficult to survey.

We accordingly moved into township 9, range 28, west of the 4th Meridian, and continued through townships 9, 10 and into 11, ranges 27, 28 and 29. My party is now camped in township 11, range 29 west of the 4th Meridian.

The season has been a good one for the work we have had in hand, and on account of the fall being open and mild to date we have been able to get over a large area, and to clear off a lot of work which has been pending for a long time.

Below is a list of surveys and examinations:

DIVERSIONS.

Survey through section 2-9-22-4.
 Diversion into sections 16, 21 and 22-8-29-4.
 Diversion into S. W. $\frac{1}{4}$ section 25 and S. E. $\frac{1}{4}$ section 26-5-18-4.
 Diversion into N. W. $\frac{1}{4}$ section 22-5-18-4.
 Diversion into N. E. $\frac{1}{4}$ section 8-5-17-4.
 Diversion into N. W. $\frac{1}{4}$ section 21-5-19-4.
 Diversion into N. W. $\frac{1}{4}$ section 9-1-12-4.
 Diversion into W. $\frac{1}{2}$ section 23-1-17-4.
 Diversion into N.W. $\frac{1}{4}$ section 36-1-17-4.
 Diversion into section 33-10-17-4.
 Diversion into S. W. $\frac{1}{4}$ section 13-8-1-5.
 Diversion into N. E. $\frac{1}{4}$ section 32 and N. W. $\frac{1}{4}$ section 33-10-11-4.
 Diversion through section 1-10-22-4.
 Diversion into S. W. $\frac{1}{4}$ section 25-5-29-4.
 Diversion into S. W. $\frac{1}{4}$ section 13-10-17-4.
 Diversion into N. W. $\frac{1}{4}$ section 22-4-16-4.
 Diversion through section 26-1-17-4.
 Diversion into section 15-5-19-4.
 Diversion through section 23-8-1-5.
 Diversion into sections 2 and 11-10-27-4.
 Diversion into sections 20 and 29-9-26-4.
 Diversion into N. W. $\frac{1}{4}$ section 36-1-17-4.
 Diversion into N. $\frac{1}{2}$ section 31-1-16-4.
 Diversion into S. E. $\frac{1}{4}$ section 17-8-29-4.
 Extension into N. W. $\frac{1}{4}$ section 4-7-29-4.
 Diversion into N. W. $\frac{1}{4}$ section 6 and S. W. $\frac{1}{4}$ section 7-7-29-4.
 Diversion into S. W. $\frac{1}{4}$ section 18-8-28-4 and S. E. $\frac{1}{4}$ section 13-8.
 Diversion into section 35-4-17-4.
 Diversion into sections 5 and 8-8-28-4.
 Diversion into N. W. $\frac{1}{4}$ section 33-7-28-4.

NEW ROADS

Road through sections 2, 3, 9 and 10-11-29-4.
 Road through township 1, ranges 12, 13 and 14, W. 4th Meridian.
 Road through Piegan Reserve and sections 7 and 18-7-28-4.

CHANGES.

Change in section 9-3-29-4.
 Change in N. W. $\frac{1}{4}$ section 17-1-23-4.
 Change on blind line north of section 28-4-23-4.
 Change in N. E. $\frac{1}{4}$ section 14-11-22-4.
 Change in N. E. $\frac{1}{4}$ section 6-9-1-5.
 Change in section 12-5-29-4.
 Change in S. $\frac{1}{2}$ section 29-7-29-4.
 Change in S. E. $\frac{1}{4}$ section 25-8-1-5.
 Change in section 19-3-29-4.

SURVEYS CHECKED.

Survey in sections 9 and 16-7-21-4.
 Survey in section 11-4-22-4.
 Survey in section 10-3-26-4.

EXAMINATIONS.

Proposed change in section 29-7-3-5.
 Proposed change in old road in section 4-10-26-4.
 Proposed road north of sections 13/14, and 15-6-30-4.
 Proposed change in sections 29 and 32-6-25-4.
 Proposed change in sections 1 and 12-5-30-4.
 Proposed change in sections 14-8-30-4, section 25-8-1-5 and sections
 1. 2, 10 and 11-9-1-5.
 Proposed road through sections 10 and 15-4-29-4.
 Proposed change in N. E. $\frac{1}{4}$ section 22-3-29-4.
 Proposed change for bridge site on Milk River, section 11-1-23-4.
 Proposed change in previous diversions W. of N. W. $\frac{1}{4}$ section 24-6-20-4.
 Proposed change in N. E. $\frac{1}{4}$ section 31-4-28-4.
 Proposed change in N. E. $\frac{1}{4}$ section 31-4-28-4.
 Proposed change in N. E. $\frac{1}{4}$ section 1-3-28-4.
 Proposed change in N. E. $\frac{1}{4}$ section 28-7-1-5.
 Proposed change in road allowance north and east of section 31-5-28-4
 and north of sections 35 and 36-5-29-4.
 Proposed change in S. W. $\frac{1}{4}$ section 4-2-27-4.
 Proposed change re a lease of road allowances within the 44 Ranch.
 Proposed diversion east of section 9-7-29-4.
 Proposed change of previous diversions into sections 31/32-4-29-4.
 Proposed diversion between sections 8/17-4-17-4.
 Proposed diversion into sections 25/36-12-23-4.
 Proposed change re the moving of buildings on section 1-10-24-4.
 Proposed road through sections 26, 35 and 36-11-30-4.
 Proposed change in N. E. $\frac{1}{4}$ section 5 and S. E. $\frac{1}{4}$ section 8-2-24-4.
 Proposed road on Blind Line west from Carmangay.
 Proposed road between sections 16/21-7-29-4.
 Proposed road through S. W. $\frac{1}{4}$ section 24-8-1-5.
 Proposed road into section 5-14-22-4.
 Proposed diversion into $\frac{1}{2}$ section 9-8-28-4.
 Proposed road allowance N. of section 31-5-19-4.
 Proposed road between sections 27/34-2-13-4.
 Proposed bridge site on Milk River in section 1-2-22-4.
 Proposed diversion into sections 25/36-12-23-4.
 Proposed change in section 2-2-29-4.
 Proposed diversions into section 36-6-12-4 and 29/30-6-11-4.
 Proposed road through sections 8, 9 and 10-12-19-4.
 Proposed road through section 5-14-20-4.
 Proposed road through sections 18/19-4-27-4.

Proposed road through sections 5/6-9-29-4.
 Proposed road through sections 35-7-1-5.
 Proposed road allowance east of section 16-5-28-4.
 Proposed change in S. W. $\frac{1}{4}$ section 7-2-27-4.
 Proposed diversion into N. W. $\frac{1}{4}$ section 34-9-24-4.
 Proposed change in N. E. $\frac{1}{4}$ section 7-2-23-4.
 Proposed diversion into N. W. $\frac{1}{4}$ section 24-8-1-5.
 Proposed road in sections 9/10-7-29-4.
 Proposed diversion north of section 9-8-30-4.
 Proposed diversion into N. W. $\frac{1}{4}$ section 19-5-28-4.
 Proposed diversion at N. E. corner section 10-5-28-4.
 Proposed diversion into N. W. $\frac{1}{4}$ section 18-5-28-4.
 Proposed diversion into S. W. $\frac{1}{4}$ section 19-5-28-4.
 Proposed road through sections 7, 17 and 18-5-28-4.
 Proposed road to steel bridge in section 4-2-12-4.
 Proposed staked grades to Waterton bridge, section 31-5-26-4.
 Proposed road in township 13, ranges 28/29-4.
 Respecting snow on Rock Creek Bridge, township 8-2-5.

In addition to the above list, I have surveyed five other roads which have not been reported.

I have also made personal examinations of all surveys made in order that mistakes in location may be prevented, and I have made it a point to consult members of the Provincial Parliament, Municipality Councillors and Local Improvement Councillors with respect to location of roads and the necessity for the same with a view to eliminating all unnecessary surveys.

Your obedient servant,

R. J. GORDON.

District Surveyor and Engineer.

LACOMBE, ALTA., December 17th, 1913.

L. C. CHARLESWORTH, ESQ.,

Director of Surveys,

Edmonton, Alta.

SIR,—I have the honour to submit the following report in connection with the work done in the Lacombe Public Works District during the year 1913, and attached hereto is a tabulated list and classified as "New Roads," "Road Diversions," "Examinations," and "Drains."

I organized my party on the 14th of April and took the field and disbanded again on the 13th of December. I might say that without any exceptions this has been the best season I have ever experienced for carrying on field work. Scarcely any rain fell and therefore trails were exceedingly good as compared with former years, which enabled us to move from survey to survey much easier and to do almost double

the work of last year. With the exception of that portion covered by the Rural Municipality of Hays, I have gone over the whole of the District and very few surveys are now outstanding.

The latter part of the year as well as the early part was spent as usual in preparing the returns of the previous season's surveys.

Your obedient servant,

A. S. STEWART,

District Surveyor and Engineer.

NEW ROADS.

New road in sections 17/18/19/20-39-26-4, change.
 New road between sections 3/10-39-22-4, change.
 New road in section 15-43-23-4, correction.
 New road between sections 3/10 and N. E. 4-42-21-4, change.
 New road along $\frac{1}{4}$ line in township 36, 4/5/6-5.
 New road in sections 28/29-41-27-4.
 New road across section 12-38-19 and between sections 6/7 and 5/8-38-18-4.
 New road along blind line between sections 13/24 and 14/23, township 45-27-4.
 New road along blind line north of sections 29/30/25-38-1/2-5.
 New road along blind line between sections 25/36-35-20-4.
 New road in section 9-45-2-5.
 New road along blind line south of S. E. 9-37-19-4.
 New road in section 19-44-26-4, change.
 New road through sections 14/15-40-2-5.
 New road along blind line north of sections 15/16-44-21-4.
 New road along centre line of sections 22/23/24-40-6-5.
 New road along blind line and $\frac{1}{4}$ line through township 38, 6/7-5.
 New road along $\frac{1}{4}$ line south of N. E. 14-42-4-5.
 New road along $\frac{1}{4}$ line in section 6-42-18-4.
 New road along blind line north of section 29-42-19-4.
 New road along blind line across township 44, 28/1, 4/5 and between sections 16/21-44-27-4.
 New road along $\frac{1}{4}$ line south of N. W. 12-41-4-5.
 New road across section 5-43-19-4.
 New road across sections 28-38-27-4.
 New road along blind line south of section 8-40-5-5.

ROAD DIVERSIONS.

Diversion in S. E. 25-45-23-4, change.
 Diversion in west $\frac{1}{2}$ section 34 and N. E. section 33-42-26-4, change.
 Diversion in south $\frac{1}{2}$ section 27-37-23-4, change.
 Diversion between sections 4/5-40-19-4, change.
 Diversion in east $\frac{1}{2}$ section 5-42-19-4, change.
 Diversion in N. W. 16 and S. W. 21-42-19-4, change.
 Diversion in N. E. 23-43-1-5.
 Diversion in south $\frac{1}{2}$ section 26-36-25-4.
 Diversion in west $\frac{1}{2}$ section 4-40-27-4.
 Diversion in S. W. 14 and N. W. 11-38-28-4, change.
 Diversion in N. W. 9-43-2-5.
 Diversion in N. E. section 22-46-1-5.
 Diversion in north $\frac{1}{2}$ section 24 and S. W. section 25-43-2-5.
 Diversion in S. E. section 18-38-19-4.
 Diversion in N. E. section 34-41-4-5.
 Diversion in sections 14/23-43-24-4, change.
 Diversion between sections 1 and 2-37-20-4.

- Diversion in S. E. section 15-43-18-4.
- Diversion in N. E. 22, N. W. 23 and S. W. 26-43-17-4.
- Diversion in N. E. section 21-43-17-4.
- Diversion in S. E. section 19-39-27-4.
- Diversion in N. W. section 34-37-17-4.
- Diversion in N. W. section 8 and S. W. section 17-46-22-4, change.
- Diversion in S. E. section 8-43-19-4.
- Diversion in S. W. section 2-38-21-4.
- Diversion between sections 11/12-45-20-4.
- Diversion between sections 3/4-43-23-4.
- Diversion between sections 11/12-36-6-5.
- Diversion between sections 30/31-40-2-5.
- Diversion in S. E. section 33 and N. W. section 34-45-1-5.
- Diversion in S. E. section 19 and S. W. section 20-39-4-5.
- Diversion between sections 12/13-44-22-4.
- Diversion in S. W. section 4-42-26-4.
- Diversion in north $\frac{1}{2}$ section 22-34-15-4.
- Diversion in S. E. section 13 and W. $\frac{1}{2}$ section 18-44-23/22-4.
- Diversion in S. W. section 28-40-23-4.
- Diversion east of sections 9/16/21-42-21-4.
- Diversion north of sections 35/36/31/32-41-20/19-4.
- Diversion in N. E. section 34 and section 35-41-17-4 and S. E. section 2 and south $\frac{1}{2}$ section 1-42-17-4.
- Diversion in S. E. section 15-41-27-4.
- Diversion between sections 26/27 and 34/35-39-22-4.
- Diversion in S. E. section 2 and N. W. section 12-40-22-4.
- Diversion in east $\frac{1}{2}$ section 9-41-3-5.
- Diversion in west $\frac{1}{2}$ section 27-40-3-5.
- Diversion in N. W. section 22-38-21-4.
- Diversion in N. W. section 26-38-21-4.
- Diversion in N. W. section 33 and S. E. section 32-40-23-4.
- Diversion in S. W. section 35 and N. W. section 26-42-24-4.
- Diversion in N. W. section 15, S. E. section 21 and S. W. section 22-42-27-4.
- Diversion in S. $\frac{1}{2}$ section 6-39-21-4.
- Diversion in N. $\frac{1}{2}$ section 7-41-1-5.
- Diversion in S. E. 1-42-18-4.
- Diversion in W. $\frac{1}{2}$ section 34, N. E. 33, S. E. 28, N. W. 22 and N. E. 21-39-20-4.
- Diversion between 7/18-40-20-4.
- Diversion in S. W. 6-42-25 and N. W. 31-41-25-4.
- Diversion in N. W. 30-46-26-4.
- Diversion in W. $\frac{1}{2}$ section 27-39-7-5.
- Diversion in S. W. 15-43-23-4.
- Diversion in S. W. 29-42-27-4.
- Diversion in N. E. 19 and N. W. 20-39-20-4.
- Diversion in N. $\frac{1}{2}$ section 8-40-2-5.
- Diversion between sections 2 and 3-47-23-4.
- Diversion in N. E. 14-41-24-4.
- Diversion between sections 1 and 2-39-24-4.
- Diversions in N. W. 33-38-24-4.
- Diversion in N. E. 7-41-21-4.
- Diversion in N. E. 4, N. W. 3 and S. W. 10-40-22-4.
- Diversion in S. W. 2-37-16-4.
- Diversion between sections 22/27 and 23/26-39-20-4.
- Diversion in W. $\frac{1}{2}$ section 5-41-1-5.
- Diversion in N. W. 32-43-27-4.
- Diversion in S. W. 6-44-27-4.
- Diversion in N. E. 7-43-2-5.

EXAMINATIONS.

- Examination in section 11-43-21-4.
- Examination in S. E. 4 and S. W. 3-38-26-4.
- Examination in sections 30/31-42-27-4.
- Examination in S. W. 30-39-21-4.
- Examination in N. W. 23, S. W. 26 and S. E. 27 and N. E. 22-41-17-4.

Examination of blind line between sections 1 and 12-43-19 and sections 6/7 and 5/8-43-18-4.

Examination in section 14-39-7-5.

Examination east of sections 1 and 12-46-1-5 and east of sections 25/36-45/1-5.

Examination west of townships 44/45/46-1-5.

Examination north of section 36-40-4-5.

Examination in section 16-45-19-4.

Examination in sections 9/10-40-21-4.

Examination west of sections 2/11/14-40-21-4.

Examination in N. E. 19 and N. W. 20-39-16-4.

Examination along Battle River in township 46-1-5.

Examination west of section 19-42-23-4.

Examination in S. E. 17-48-20-4.

Examination S. of S. E. 5-42-17-4.

Examinations in sections 6/7/8-43-22-4.

Examination in section 33-46-3-5.

Examination in section 27-41-25-4.

Examination in N. E. 4-47-23-4.

Examination W. of N. E. 23-37-21-4.

Examination between sections 14/23-37-21-4.

Examination between sections 9/10-45-20-4.

Examination east of section 12-43-28-4.

Examination in N. E. 21-39-22-4.

Examination S. of Rocky Mountain House between sections 9/10-39-7-5.

Examination of blind line between S. W. 19 and N. W. 18-39-21-4.

Examination east of section 25-46-26-4.

Examination north of section 35-42-28-4.

Examination in sections 1 and 12-46-26-4.

Examination in section 1-39-26-4.

Examination in N. W. 6-36-19-4.

Examination of blind line between sections 26/35 and 27/34-39-20-4.

Examination between sections 7/8-38-21-4.

Examination between sections 23/26-39-22-4.

Examination E. of S. E. 9-43-19-4.

Examination in section 8-40-20-4.

Examination between 12/13-40-3-5.

Examination between sections 9/10-41-2-5.

Examination between sections 20-29-46-19-4.

Examination between sections 10/15-46-19-4.

Examination of blind line N. of section 27-42-17-4.

Examination of lot 11, block 4, Aspern subdivision, Gull Lake, between sections 23/26-40-28-4.

Examination between sections 23/26-42-28-4.

DRAINS.

Drain in N. W. 17 and S. W. 20-40-24-4.

Office of the District Surveyor & Engineer,

December 20th, 1913.

L. C. CHARLESWORTH, ESQ.,

Director of Surveys,

Edmonton, Alberta.

SIR,—I have the honour to submit the following report regarding the work done in the Wainwright Public Works District by myself and party during the season of 1913.

I organized my party in Edmonton the last week in April and on the 30th shipped the outfit to Wainwright where we commenced the season's work.

The Spring Season was cold and dry, not at all favourable to the settlers but quite suitable for surveying. Towards the end of June and during July we had a few heavy rains which were much needed and did a great deal of good. The balance of the season was exceptionally fine for survey work. During the whole season the party only lost seven full days on account of rain. The time lost on showery days was very small. The trails were nearly always in good condition consequently camp moving was comparatively easy. In all we moved the main camp about six hundred miles over a route which I mapped out at the beginning of the season. The object of this route was to cover the whole district but also and more particularly to ensure getting to the different points where the work was heaviest and most urgent. On the whole it worked out satisfactorily although a few examinations had to be left over for another season. On the other hand I made a number of surveys not on the schedule which were requested by settlers and Rural Municipalities while I was on the ground with the party. The time taken for these surveys tends to upset the season's plans and I only did those which I considered urgent. Otherwise part of the district would have suffered at the expense of another part.

The district is settling up very fast and old trails which are invariably good are being fenced off. Therefore I think that there will be considerable work in this district for some time to come.

The last week in November I brought the party in, the frost being too deep in the prairie to dig pits.

The following summary shows the location of the work done under the different files on which reports were made in detail during its progress.

I have the honour to be, Sir,

Your obedient servant,

A. G. STEWART,
District Surveyor and Engineer.

DIVERSIONS.

- Diversion in S. W. $\frac{1}{4}$ section 1-38-9-4.
- Diversion in sections 19/30-39-9-4 and sections 24 and 25-39-10-4.
- Diversion in the N. W. $\frac{1}{4}$ section 10-35-8-4.
- Diversion in the S. W. $\frac{1}{4}$ section 29 and S. E. $\frac{1}{4}$ section 30-37-9-4.
- Diversion in N. E. $\frac{1}{4}$ section 22 and N. W. $\frac{1}{4}$ section 23-37-12-4.
- Diversion in N. W. $\frac{1}{4}$ section 31-37-11-4.
- Diversion in section 5-35-4-4.
- Diversion in section 2-44-5-4.
- Diversion in N. W. $\frac{1}{4}$ section 21-43-5-4.
- Diversion in N. E. $\frac{1}{4}$ section 8 and S. E. $\frac{1}{4}$ section 9 and S. $\frac{1}{2}$ section 16 and N. W. $\frac{1}{4}$ section 9 and N. $\frac{1}{2}$ section 12-43-1-4.
- Diversion in N. W. $\frac{1}{4}$ section 19-38-16-4.
- Diversion in S. W. $\frac{1}{4}$ section 3-38-14-4.
- Diversion in W. $\frac{1}{2}$ section 27-34-17-4.

Diversion in W. $\frac{1}{2}$ section 7-35-16-4.
 Diversion in S. W. $\frac{1}{4}$ section 6-33-15-4.
 Diversion in W. $\frac{1}{2}$ section 31-32-15-4.
 Diversion in E. $\frac{1}{2}$ section 15-35-17-4.
 Diversion in S. W. $\frac{1}{4}$ section 6-36-15-4.
 Diversion in N. W. $\frac{1}{4}$ section 7-36-15-4.
 Diversion in S. E. $\frac{1}{4}$ section 5-37-9-4.
 Diversion in section 9/16-35-4-4.
 Diversion in sections 1, 2, 7, 8, 11, 12, and 17-39-1-4.
 Diversion in section 25/36-41-2-4.
 Diversion in section 1-38-10-4 and S. W. $\frac{1}{4}$ section 6-38-9-4.
 Diversion in S. E. $\frac{1}{4}$ section 1-38-10-4.
 Diversion in section 10-40-5-4.
 Diversion in section 17-37-11-4.
 Diversion in section 34-34-6-4.
 Diversion in section 14-34-6-4.
 Diversion in sections 1/12-34-6-4.
 Diversion in N. W. $\frac{1}{4}$ section 7-35-5-4.
 Diversion in sections 9, 10 and 15-40-11-4.
 Diversion in N. W. $\frac{1}{4}$ section 3-40-9-4.
 Diversion in sections 24/25-39-9-4 and section 30-39-8-4.
 Diversion in section 8-34-8-4.
 Diversion in section 11-40-8-4.
 Diversion in section 14-40-8-4.
 Diversion in sections 16/17-38-9-4.
 Diversion in sections 30/31-37-9-4 and sections 25/36-37-10-4.
 Diversion in W. $\frac{1}{2}$ section 7-37-9-4 and N. E. $\frac{1}{4}$ section 12 and S. E. $\frac{1}{4}$ section 13-37-10-4.
 Diversion in section 1-38-17-4 and N. E. cor. section 36-37-17-4.
 Diversion in S. E. $\frac{1}{4}$ section 21-34-17-4.
 Diversion in N. E. $\frac{1}{4}$ section 19 and S. W. $\frac{1}{4}$ section 30-34-16-4.
 Diversion in the N. E. $\frac{1}{4}$ section 19 and S. W. $\frac{1}{4}$ section 30-34-16-4 and S. E. $\frac{1}{4}$ section 25-34-17-4.
 Diversion in section 17/20-32-15-4.
 Diversion in sections 20, 21, 22, 28, 29 and 30-34-17-4.
 Diversion in sections 5 and 8-46-11-4.
 Diversion in S. W. $\frac{1}{4}$ section 14-37-12-4.
 Diversion in N. E. $\frac{1}{4}$ section 34 and the N. W. $\frac{1}{4}$ section 35-38-15-4.
 Diversion in S. W. $\frac{1}{4}$ section 26 and the E. $\frac{1}{2}$ section 27-38-14-4.
 Diversion in E. $\frac{1}{2}$ section 11 and the S. E. $\frac{1}{4}$ section 14-38-14-4.
 Diversion in N. W. section 25-34-11-4.
 Diversion in N. W. $\frac{1}{4}$ section 4-36-11-4.
 Diversion in S. E. $\frac{1}{4}$ section 28 and N. W. $\frac{1}{4}$ section 22-36-10-4.
 Diversion in S. W. $\frac{1}{4}$ section 15-30-14-4.
 Diversion in N. E. $\frac{1}{4}$ section 21-30-14-4.
 Diversion in W. $\frac{1}{2}$ section 10-30-14-4.
 Diversion in S. W. $\frac{1}{4}$ section 35-32-12-4.
 Diversion in N. W. $\frac{1}{4}$ section 4 and S. W. $\frac{1}{4}$ section 9 and S. E. $\frac{1}{4}$ section 8-29-14-4.
 Diversion in N. W. $\frac{1}{4}$ section 4 and S. W. $\frac{1}{4}$ section 4-30-14-4.
 Diversion in E. $\frac{1}{2}$ section 32-29-14-4.
 Diversion in W. $\frac{1}{2}$ section 5-32-15-4.
 Diversion in N. W. $\frac{1}{4}$ section 19-31-14-4.
 Diversion in N. E. $\frac{1}{4}$ section 24-31-15-4.
 Diversion in E. $\frac{1}{2}$ section 18 and S. E. $\frac{1}{4}$ section 6-40-9-4.
 Diversion in sections 25/36 and 35-42-4-4 and in section 1-43-4-4.
 Diversion in sections 9 and 16-35-6-4.

NEW ROADS.

New road in sections 11/12-42-10-4 and sections 36/25 and 24-41-10-4 and sections 19/18/17-8 and 5-41-9-4 and sections 32/29 and 20-40-9-4.
 New road across section 36-37-2-4.
 New road across section 16-35-6-4.
 New road north of section 25-37-14-4.
 New road north of section 6-38-9-4.

New road north of sections 17 and 18-42-10-4 and north of sections 13' 14/15 and 16-42-11-4.
 New road across sections 34 and 35-37-9-4.
 New road north of sections 1 and 2/3 and 5 and 6-43-1-4, with diversions from north boundary into sections 3 and 4.
 New road in sections 8/9 and 16-34-16-4.
 New road south and west of the N. E. $\frac{1}{4}$ section 36-34-17-4.
 New road across section 8 and in section 9-39-15-4.
 New road north and west of the E. $\frac{1}{2}$ section 13-36-17-4.
 New road north of sections 1, 2 & 3 and N. E. $\frac{1}{4}$ section 4-36-17-4 and between the east and west $\frac{1}{2}$ section 9-36-17-4.
 New road across sections 34/35 and 36-31-15-4 and across section 31-31-14-4.
 New road in sections 1 and 12-38-14-4.
 New road in the N. W. $\frac{1}{4}$ section 33-38-15-4. and N. W. $\frac{1}{4}$ section 3-39-15-4.
 New road north of section 26-30-15-4.

RESURVEYS.

Diversion in the S. W. $\frac{1}{4}$ section 4-29-12-4 and the N. W. $\frac{1}{4}$ section 33-28-11-4.
 New road across section 30-28-10-4.

EXAMINATIONS

Examination east of sections 16/21 and 28-43-1-4.
 Examination east of section 24-41-2-4.
 Examination north of section 11-41-1-4.
 Examination blind line across middle 32-15-4.
 Examination around Gough Lake in section 4-36-17-4.
 Examination west of sections 8/17 and 20 and 29-39-1-4.
 Examination blind line north of sections 15 and 16 township 39-15-4.
 Examination blind line north of sections 16 and 17/18-38-15-4.
 Examination east of section 11-38-16-4.
 Examination east of section 9-39-2-4.
 Examination route for road from S. E. $\frac{1}{4}$ section 14-36-6-4 to section 21-37-6-4.
 Examination blind line north of sections 2-41-8-4 and north of section 5-41-7-4.

EDMONTON, December 31st, 1913.

JNO. STOCKS, ESQ.,

Deputy Minsiter of Public Works,

Edmonton, Alberta.

SIR,—I beg to submit the following report of surveys made in the districts of Medicine Hat and Olds, during the season 1913.

Road Diversions, New Roads and Examinations formed the greater part of the work.

A few surveys were made in the Medicine Hat District the first part of the season. The party and outfit were then shipped into the Olds District and remained there working until the close of the season. Before laying out diversions and New Roads levels were taken

to determine as easy grades as possible. On the whole this season has been favourable for field operations.

Party was disbanded November 24th.

The following schedule attached shows the work completed and classified.

Your obedient servant,

J. A. CARBERT,

District Surveyor and Engineer.

ROAD DIVERSIONS

Diversion 16/21-5-11-4.
 Diversion N. E. $\frac{1}{4}$ 23-29-23-4.
 Diversion N. E. $\frac{1}{4}$ 24, S. E. $\frac{1}{4}$ 25-29-23-4.
 Diversion 16/17-29-23-4.
 Diversion W. $\frac{1}{2}$ 21-29-23-4.
 Diversion S. W. $\frac{1}{4}$ 27-29-24-4.
 Diversion 14, 15 and 23-29-24-4.
 Diversion 14/15 and N.E. $\frac{1}{4}$ 9-28-22-4.
 Diversion N. E. $\frac{1}{4}$ 31-29-18-4 and sections 5, 6, 7, 8-30-18-4.
 Diversion N. W. $\frac{1}{4}$ 36-29-19-4 and S $\frac{1}{2}$ 1-30-19-4.
 Diversion N. W. $\frac{1}{4}$ 19-29-18-4.
 Diversion S. E. $\frac{1}{4}$ 9 and S. W. $\frac{1}{4}$ 10-30-20-4.
 Diversion 15/16 and 21, S. E. $\frac{1}{4}$ 28, N. E. $\frac{1}{4}$ 33-9-6-4.
 Diversion 13/24-36-26-4 and 18/19-26-25-4.
 Diversion 32-29-18-4 and 5-30-18-4.
 Diversion N. E. $\frac{1}{4}$ 8-31-17-4.
 Diversion S. E. $\frac{1}{4}$ 15-32-16-4.
 Diversion N. E. $\frac{1}{4}$ 4 and S. E. $\frac{1}{4}$ 9-32-16-4.
 Diversion S. E. $\frac{1}{4}$ 32-32-16-4.
 Diversion N. W. $\frac{1}{4}$ 32-31-18-4.
 Diversion N. E. $\frac{1}{4}$ 32-32-17-4 and S. E. $\frac{1}{4}$ 5-33-17-4.
 Diversion N. W. $\frac{1}{4}$ 21-31-19-4.
 Diversion N. E. $\frac{1}{4}$ 30-31-27-4.
 Diversion S. W. $\frac{1}{4}$ 1-35-26-4 and N. E. $\frac{1}{4}$ 31 and N. W. $\frac{1}{4}$ 32-34-26-4.
 Diversion N. $\frac{1}{2}$ 22-36-25-4.
 Diversion N. W. $\frac{1}{4}$ 33-34-26-4 and S. W. $\frac{1}{4}$ 3-35-26-4.
 Diversion S. W. $\frac{1}{4}$ 29-30-18-4.
 Diversion S. E. $\frac{1}{4}$ 29 and N. W. $\frac{1}{4}$ 21-36-24-4.
 Diversion S. E. $\frac{1}{4}$ 2, S. W. $\frac{1}{4}$ and N. W. $\frac{1}{4}$ 1-36-25-4.
 Diversion W. $\frac{1}{2}$ 11-36-25-4.
 Diversion N. W. $\frac{1}{4}$ 36-35-25-4.
 Diversion N. W. $\frac{1}{4}$ 35-35-25-4.
 Diversion W. $\frac{1}{2}$ 21-34-25-4.
 Diversion S. W. $\frac{1}{4}$ 16-35-25-4.
 Diversion N. W. $\frac{1}{4}$ 9 and S. W. $\frac{1}{4}$ 14-34-25-4.
 Diversion S. $\frac{1}{2}$ 3-34-25-4.
 Diversion S. W. $\frac{1}{4}$ 26-33-25-4.
 Diversion S. W. $\frac{1}{4}$ 5-32-27-4 and N. $\frac{1}{2}$ 31-31-27-4.
 Diversion N. E. $\frac{1}{4}$ 33 and N. W. $\frac{1}{4}$ 34-31-27-4.
 Diversion N. E. $\frac{1}{4}$ 24-31-27-4.
 Diversion S. E. $\frac{1}{4}$ 19-31-27-4.
 Diversion N. E. $\frac{1}{4}$ 19-31-27-4.
 Diversion S. W. $\frac{1}{4}$ 17-31-27-4.
 Diversion N. E. $\frac{1}{4}$ 12-31-26-4.
 Diversion S. E. $\frac{1}{4}$ 25-36-25-4.
 Diversion N. W. $\frac{1}{4}$ 6-31-26-4.
 Diversion sections 1 and 2-31-26-4.
 Diversion sections 32 and 33-30-26-4.
 Diversion N. W. $\frac{1}{4}$ 8-31-25-4.

Diversion section 10 and 15-34-2-5.
 Diversion N. E. $\frac{1}{4}$ 19-34-2-5.
 Diversion sections 17 and 19-31-21-4.
 Diversion S. E. $\frac{1}{4}$ 14 and S. E. $\frac{1}{4}$ 15-35-3-5.
 Diversion N. E. $\frac{1}{4}$ 11-33-2-5.
 Diversion N. $\frac{1}{2}$ 21-36-28-4.
 Diversion S. E. $\frac{1}{4}$ 6-33-2-5 and N. E. $\frac{1}{4}$ 36-32-3-5.
 Diversion N. W. $\frac{1}{4}$ 12 and S. E. $\frac{1}{4}$ 13-34-3-5.
 Diversion S. W. $\frac{1}{4}$ 11-29-20-4.
 Diversion sections 15, 16 and 21-30-17-4.

NEW ROADS

New road N. E. $\frac{1}{4}$ 15-31-20-4.
 New road section 28-34-27-4.
 New road N. $\frac{1}{2}$ 12-36-26-4
 New road N. $\frac{1}{2}$ and S. $\frac{1}{2}$ 1-34-25-4.
 New road N. $\frac{1}{2}$ and S. $\frac{1}{2}$ 22-34-2-5.
 New road sections 11 and 14-29-20-4.

EXAMINATIONS AND REPORTS

Examination report on sections 9/16-31-18-4.
 Examination report on section 9-30-24-4.
 Examination report on S. E. $\frac{1}{4}$ 7-30-19-4
 Examination report on section 9-30-19-4.
 Examination report on section 13-29-20-4.
 Examination report on sections 12/13-32-16-4.
 Examination report on sections 1 and 2-32-18-4.
 Examination report on section 9-29-20-4.
 Examination report on sections 14/15, 16/17-31-21-4.
 Examination report on section 7-34-27-4.
 Examination report on sections 9/16-35-26-4.
 Examination report on section 16-34-27-4.
 Examination report on S. W. 8-35-26-4.
 Examination report on S. $\frac{1}{2}$ 30-35-26-4.
 Examination report on sections 26/27, 34/35-36-25-4.
 Examination report on section 34/35 and E. of S. E. $\frac{1}{4}$ 32-34-25-4.
 Examination report on sections 33/34-34-25-4.
 Examination report on sections 3/4-31-26-4.
 Examination report on sections 19/20-31-1-5.
 Examination report on S. E. $\frac{1}{4}$ 33-32-2-5.
 Examination report on Dunmore Development Co.'s Spur, Dunmore, Alta.

EDMONTON, December 31st, 1913.

L. C. CHARLESWORTH, ESQ.,

Director of Surveys,

Edmonton, Alta.

SIR,—I have the honour to submit the following report with regard to survey work performed by me during the season of 1913 in North Alberta.

I organized my party in Edmonton and started work in the field the 1st day of May.

I first made the outstanding surveys required along the Tawatinaw Valley after which I worked eastward through the country North of

the Saskatchewan River to the 4th Meridian, and as far North as Cold Lake. The season was most favourable for field work although toward the latter part of November, owing to the frost in the earth, mounding became very difficult.

Party was disbanded on December 5th.

I attach hereto a complete list of surveys performed by me during the season.

Your obedient servant,

A. P. C. BELYEA.
District Surveyor and Engineer.

NEW ROADS

New road section 36 to section 24-62-24-4.
New road section 13-62-24-4 to Rochester.
New road sections 18 and 19-62-23-4 to Rochester.
New road section 6-61-24-4 to Nestow.
New road section 24-61-24-4.
New road sections 29 and 30-59-23-4.
New road sections 3 and 4-59-23-4.
New road sections 22 and 27-58-20-4.
New road section 34-56-21-4.
New road sections 26, 27 and 34-58-20-4.
New road sections 31 and 33-59-16-4.
New road sections 29 and 32-58-15-4.
New road section 36-60-18-4 to section 29-59-17-4.
New road section 8-59-14-4.
New road sections 25 and 36-58-15-4 and section 6-59-14-4.
New road section 27-57-14-4.
New road section 13-57-14-4.
New road section 1-69-10-4.
New road Victoria Trail section 30-58-14-4 to section 1-59-15-4 and through Tp. 58-16-4.
New road sections 14 and 15-56-4-4.
New road sections 18 and 19-56-4-4.
New road sections 22, 23 and 15-56-4-4.
New road section 14-54-3-4 to section 33-55-3-4.
New road N. $\frac{1}{2}$ sections 32 and 33-54-1-4.
New road sections 5 and 6-55-2-4 and section 1-55-3-4.
New road sections 20, 21 and 29-55-3-4.
New road sections 3, 9 and 10-57-5-4.
New road sections 22-59-8-4 and sections 19 and 20-59-7-4.
New road sections 15, 16 and 21-57-5-4.
New road sections 21 and 28-56-21-4.
New road sections 33, 29 and 30-61-3-4 and sections 25 and 26-61-4-4.

BLIND LINES.

Blind line south section 11-56-22-4.
Blind line centre section 16-59-17-4.
Blind line north sections 17 and 18-58-14-4.
Blind line north section 3-58-16-4.
Blind line centre sections 25 and 26-56-4-4.
Blind line north section 25-57-5-4.
Blind line north sections 27 and 28-56-6-5.
Blind line sections 13 to 18-63-2-4.
Blind line north sections 13 and 14-61-5-4 and section 18-61-4-4.

DIVERSIONS

Diversion east $\frac{1}{2}$ section 14-57-5-4.
Diversion W. $\frac{1}{2}$ section 27 and 34-57-5-4.
Diversion N. E. $\frac{1}{4}$ section 23-63-2-4.

Diversion S. E. $\frac{1}{4}$ section 15-62-2-4.
 Diversion S. W. $\frac{1}{4}$ section 26-56-21-4.
 Diversion E. $\frac{1}{2}$ sections 6 and 7-56-23-4.
 Diversion N. W. $\frac{1}{4}$ section 12-62-24-4.
 Diversion N. E. $\frac{1}{4}$ section 22 and N. W. $\frac{1}{4}$ section 23-61-24-4.
 Diversion S. W. $\frac{1}{4}$ section 26-61-24-4.
 Diversion N.E. $\frac{1}{4}$ section 29-55-22-4.
 Diversion sections 10 and 15-57-21-4.
 Diversion S. E. $\frac{1}{4}$ section 5-59-20-4.
 Diversion S. W. $\frac{1}{4}$ section 6-58-19-4.
 Diversion S. E. $\frac{1}{4}$ section 1-58-20-4.
 Diversion S. W. $\frac{1}{4}$ section 13-59-15-4.
 Diversion S. E. $\frac{1}{4}$ section 16-59-19-4.
 Diversion N. E. $\frac{1}{4}$ section 34-58-19-4.
 Diversion S. W. $\frac{1}{4}$ section 4-59-19-4.
 Diversion sections 13 and 24-59-16-4.
 Diversion sections 8 and 17-60-17-4.
 Diversion E. $\frac{1}{2}$ section 5-59-15-4.
 Diversion sections 21 and 22-59-15-4.
 Diversion N. E. $\frac{1}{4}$ section 14-58-15-4.
 Diversion N. E. $\frac{1}{4}$ section 11-59-15-4.
 Diversion S. $\frac{1}{2}$ section 6-59-14-4.
 Diversion in sections 19 and 30-59-13-4.
 Diversion N. W. $\frac{1}{4}$ section 5-59-14-4.
 Diversion E. $\frac{1}{2}$ section 24-58-15-4.
 Diversion N. E. $\frac{1}{4}$ section 24-58-15-4.
 Diversion N. E. $\frac{1}{4}$ section 33-57-15-4.
 Diversion W. $\frac{1}{2}$ section 4-57-7-4.
 Diversion W. $\frac{1}{2}$ section 33-59-17-4.
 Diversion N. $\frac{1}{2}$ section 19-57-13-4.
 Diversion N. E. $\frac{1}{4}$ section 24-57-14-4.
 Diversion S. W. $\frac{1}{4}$ section 29-57-13-4.
 Diversion S. W. $\frac{1}{4}$ section 5-58-14-4.
 Diversion N. W. $\frac{1}{4}$ section 9-56-4-4.
 Diversion S. W. $\frac{1}{4}$ section 24-57-14-4.
 Diversion sections 24 and 25-55-4-4.
 Diversion S. W. $\frac{1}{4}$ section 5-56-3-4.
 Diversion sections 23 and 26-56-5-4.
 Diversion E. $\frac{1}{2}$ section 4-56-3-4.
 Diversion N. E. $\frac{1}{4}$ section 26-54-3-4.
 Diversion S. $\frac{1}{2}$ section 6-56-3-4 and N. W. $\frac{1}{4}$ section 31-55-3-4.
 Diversion sections 19 and 30-55-3-4.
 Diversion W. $\frac{1}{2}$ section 36-54-3-4.
 Diversion N. E. $\frac{1}{4}$ section 10-56-4-4.
 Diversion S. $\frac{1}{2}$ section 3-55-2-4.
 Diversion N. W. $\frac{1}{4}$ section 31-54-1-4 and S. E. $\frac{1}{4}$ section 6-55-1-4.
 Diversion S. $\frac{1}{2}$ section 4-55-2-4.
 Diversion S. W. $\frac{1}{4}$ section 30-57-4-4.
 Diversion N. E. $\frac{1}{4}$ section 35-57-5-4.
 Diversion sections 21 and 27-57-5-4.
 Diversion N. $\frac{1}{2}$ section 19-57-4-4.
 Diversion sections 21 and 28-57-4-4.
 Diversion sections 25 and 36-60-12-4.
 Diversion W $\frac{1}{2}$ sections 4 and 9-61-5-4.
 Diversion E. $\frac{1}{2}$ sections 4 and 9-61-5-4.

EXAMINATIONS.

Examination S. W. $\frac{1}{4}$ section 18-58-19-4.
 Examination sections 31 and 32-58-15-4.
 Examination sections 33 and 34-57-14-4.
 Examination sections 26 and 27-60-8-4.
 Examination N. sections 25 and 26-56-7-4.
 Examination 18 mile road allowance, 58-9-4. Ferry tower site at
 Brosseau.

SPECIAL.

Retracement section 6-59-15-4.

VEGREVILLE, ALTA., December 31, 1913.

JNO. STOCKS, ESQ.,

Deputy Minister of Public Works,

Edmonton, Alta

SIR,—I have the honour to submit the following report of the surveys made and other work done in the Public Works District of Vegreville, during the past season.

The first part of the year was spent in preparing and completing the returns and plans of the previous season's work.

On April 21st I organized my party and went into camp at Vegreville. From this camp I completed some work in the vicinity of Mundare that was commenced the previous fall. I then moved into the districts North of Ranfurly and Innisfree, where a considerable amount of work was required, after which I moved north easterly into the Chailey and Naughton Glen country, and made a number of surveys to replace the old Battleford and Edmonton trail, which angled across the various farms. Completing here I worked southerly to the Canadian Northern Railway and thence easterly along same as far as Vermilion making such surveys as were required. From here I worked south westerly across country to Hardisty doing all the work that had accumulated since the previous year. At Hardisty I found a great quantity of work waiting for me, which I immediately cleaned up, so the road crews could continue on the work of improving the roads.

I then moved back to the Grand Trunk Pacific and worked easterly from Wainwright to Edgerton and then north easterly from here to the Battle River. This was practically the first work that had been done in this locality, and consequently there were a great number of jobs to attend to.

From here I worked north westerly along the north side of the Battle River to the country south of Birch Lake and from here I worked back easterly to the Fourth Meridian making a number of surveys along the course of my move. This completed all the work south of the Canadian Northern Railway.

I then worked north from Kitscoty to the Saskatchewan River and west along the south side of the River to Desjarlais Crossing, where a great quantity of old standing work was cleaned up.

From here I moved southerly to the west side of Birch Lake and made such surveys as had come up since spring. This completed the season's field work and I moved into Vegreville and paid my men off on December 7th.

With the exception of a few rainy days in August, the season was very favourable in my district for field work, and I was able to cover practically my whole district, especially where work was required.

The work of the past season consists in the surveys of new roads, road diversions, cross sections of streams for bridge locations, re-surveys, examination of roads, reports and estimates.

The following is a list of the various work done:

NEW ROADS.

New road north of sections 5, 6 and 7-54-10-4, through sections 15, 22 and 28-53-10-4 and north of section 18-52-9-4.
 New road through section 3-51-11-4 and section 34-50-11-4.
 New road north of sections 3, 4 and 5-45-8-4.
 New road through sections 17, 18 and 19-44-4-4.
 New road north of section 18-45-2-4.
 New road through section 35-47-2-4 and section 2-48-2-4.
 New road north of sections 28, 29 and 30-45-9-4.
 New road north of sections 28 and 29-45-10-4.
 New road north of section 29 and in N. E. $\frac{1}{4}$ section 30-44-10-4.
 New road north of sections 28, 29 and 30-40-11-4.
 New road north of section 1-47-11-4.
 New road north of section 4-48-14-4.
 New road across section 26-50-3-4, east from Kitscoty.
 New road through sections 15 and 22-52-1-4.
 New road south of section 19-54-12-4.
 New road north of the S. $\frac{1}{2}$ section 15-55-13-4.
 New road south of section 7 and through section 6-57-14-4.
 New road north of south halves sections 17 and 18-52-11-4.
 New road across sections 2, 3, 10, 11-47-10-4.
 New road across sections 6, 7 and 18-44-4-4.
 New road across sections 27, 34, 35 and 36-45-3-4 and sections 2 and 11-46-3-4.
 New road from Hardisty in section 6-43-9-4 to N. E. corner of section 20-43-9-4, also on road along blind line north of section 16-43-9-4.

ROAD DIVERSIONS.

Diversions north of section 33-51-12-4 and south of section 4-52-12-4.
 Diversions between sections 27 and 28, 33 and 34-51-12-4, and between sections 3, 4 and 10-52-12-4.
 Diversion west of section 25-51-12-4.
 Diversions east of sections 2 and 11-50-11-4.
 Diversion south of section 2-53-11-4.
 Diversion west of section 11-53-11-4.
 Diversion west of section 2-53-11-4.
 Diversion west of section 16-52-9-4.
 Diversions between sections 2 and 3-52-9-4.
 Diversion west of section 21-51-9-4.
 Diversions west of sections 6 and 7-53-8-4.
 Diversion east of section 6-51-7-4.
 Diversion south of section 15-50-7-4.
 Diversion between sections 21 and 28-49-6-4.
 Diversion west of section 6-50-7-4.
 Diversion west of sections 7 and 18-45-9-4.
 Diversion south of section 29-45-9-4.
 Diversion west of sections 9 and 16-44-9-4.
 New road across sections 2, 3 10 and 11-47-10-4.
 Diversion east of section 7-46-7-4.
 Diversion between sections 9 and 16-45-7-4.
 Diversion east of section 24-44-5-4.
 Diversion south of section 26-44-5-4.
 Diversion north of section 21-44-5-4.
 Diversion east of section 18-44-4-4.
 Diversion south of sections 3 and 4-44-4-4 and north of sections 33, 32 and 31-43-44-4 and section 36-43-5-4.
 Diversion west of section 31-43-4-4.
 Diversion west of section 32-45-4-4.
 Diversion west of section 11-44-5-4.
 Diversion north of section 35-43-4-4.
 Diversion east of section 28-44-4-4.
 Diversion north of section 7-44-3-4.
 Diversion east of section 13-44-3-4.
 Diversion east of sections 23 and 26-45-2-4.

Diversion west of sections 2 and 11-48-4-4.
 Diversion west of sections 4 and 16 and between sections 8 and 9-48-4-4.
 Diversion west of section 3-48-4-4.
 Diversion across section 20-47-5-4.
 Diversion east of section 19-47-6-4.
 Diversion west of section 27-48-8-4.
 Diversion east of sections 26 and 35-47-8-4.
 Diversion north of section 31-46-8-4.
 Diversion in sections 33-44-10-4 and sections 3, 4 and 10-45-10-4.
 Diversion east of section 13-45-11-4.
 Diversion west of sections 8 and 17-45-10-4.
 Diversion west of section 14-45-10-4.
 Diversion between section 31-44-10-4 and section 6-45-10-4.
 Diversion west of section 11-45-10-4.
 Diversion north of section 12-45-10-4.
 Diversion west of section 22-45-12-4.
 Diversion east of section 29-44-11-4.
 Diversions east of section 32-46-11-4.
 Diversion west of section 34-46-11-4.
 Diversion north of section 24-48-12-4.
 Diversion south of section 31-47-12-4.
 Diversion west of section 30-49-11-4.
 Diversions in sections 25 and 26-49-13-4.
 Diversion east of section 34-49-10-4.
 Diversion into sections 4, 9 and 10-49-10-4.
 Diversion east of section 29-50-9-4.
 Diversions between sections 11 and 12-51-7-4.
 Diversions between sections 7 and 18 and in sections 20 and 29-49-6-4.
 Diversion into sections 16 and 21-49-6-4.
 Diversions between sections 6, 7 and 18-49-6-4 and sections 1, 12 and 13-49-7-4.
 Diversions between sections 24 and 25-48-6-4.
 Diversion south of section 25-49-6-4.
 Diversion in sections 7 and 8, 17 and 18-49-5-4.
 Diversions in sections 29 and 32-48-4-4.
 Diversions in sections 8, 17, 29 and 32-49-4-4.
 Diversion into sections 19 and 30-50-2-4.
 Diversion south of section 16-52-3-4.
 Diversion into sections 24 and 25-49-2-4 and sections 19 and 30-49-1-4.
 Diversion into sections 5 and 6-53-3-4. and section 31-52-3-4.
 Diversion across section 12-54-3-4.
 Diversion into sections 29, 30 and 31-53-7-4.
 Diversion west of section 21-53-7-4.
 Diversion east of section 31-54-8-4.
 Diversion north of section 10-53-8-4.
 Diversions into sections 1, 3, 4, 5 and 6-54-8-4.
 Diversion west of sections 1 and 12-54-8-4.
 Diversion east of section 9-52-9-4.
 Diversion south of section 1-54-9-4.
 Diversion between sections 10 and 15-54-9-4.
 Diversion into sections 15 and 16-54-10-4.
 Diversion west of section 18-53-10-4.
 Diversion into section 35-53-13-4.
 Diversion south of section 19-54-12-4.
 Diversions between sections 26 and 27-55-13-4.
 Diversion west of section 13-55-13-4.
 Diversion into sections 11, 13 and 14-57-13-4.
 Diversions between sections 1 and 2, 11 and 12-57-13-4.
 Diversion west of sections 22 and 27-56-13-4.
 Diversion in sections 23, 34 and 35-56-14-4. and sections 2 and 3-57-14-4.
 Diversion east of sections 11 and 14-57-14-4. Desjarlais Crossing.
 Diversions between section 31-49-12-4 and section 6-50-12-4.

EXAMINATIONS, ETC.

Examination and report no survey required at north east corner section 12-52-10-4.

Examination and report re road in section 31-42-9-4.

Examination and report re road in section 30-45-7-4.
 Examination and report of proposed road along $\frac{1}{4}$ section line in sections 32 to 36-42-9-4.
 Examination and report found survey made west of section 22-44-6-4. (Railway crossing.)
 Examination and report no survey required east of section 29-44-6-4.
 Examination and report no survey required east of section 26-44-5-4.
 Examination and report no survey required at north west corner section 24-44-4-4.
 Examination and report re road and bridge location in section 5-44-1-4.
 Examination and report re survey required east of sections 2 and 11-45-11-4.
 Examination and report found survey made east of section 32-45-11-4 and east of section 4-46-11-4 and no survey required south of section 29-45-11-4.
 Examination and report no road surveyed north of section 13-47-11-4. Settlers would not grant land.
 Examination and report that diversion east of section 21-46-13-4 can be abandoned.
 Examination and report no survey required east of section 12-49-6-4.
 Examination and report no survey required between sections 3 and 4-54-3-4.
 Examination and report road can be graded east of section 21-54-8-4.
 Examination and report no survey required between sections 33 and 34-54-10-4.
 Examination and report no survey required between sections 27 and 28-54-12-4. A survey was made last year east section 27-54-12-4 for a bridge location which location is recommended instead of west section 27-54-12-4.
 Examination and report road can be made north of section 11-56-14-4 but impossible to make road north of section 10-56-14-4.
 Examination and report re subway location west of section 16-51-5-4.
 Staked hill grade north and west of section 9-47-5-4.
 Examination and report and cross-section re road and bridge site east of section 1-51-9-4.
 Staked hill grades on Buffalo Coulee, 46-7-4.
 Resurvey and diversion across sections 24 and 25-51-12-4.

Progress reports and sketches were forwarded to the Department at the time the surveys and examinations were made.

A number of the plans and field notes have already been forwarded to the Department and the remainder are now in course of preparation.

I have the honour to be, Sir,

Your obedient servant,

LENNOX T. BRAY,

District Surveyor and Engineer.

CALGARY, December 31st, 1913.

L. C. CHARLESWORTH, ESQ.,

Director of Surveys,

Edmonton, Alta.

SIR,—I have the honour to submit the following report of work done by myself and party in the Calgary and Olds (West) districts during the season 1913.

Until April 24th I was occupied with office work, during which time I made several trips of examination in company with Mr. Calder,

Inspector of Public Works. On that date I started with my party for the country south of Calgary, clearing up all surveys west of the Macleod branch of the C. P. R. as far as Nanton. I then moved north-east making all necessary surveys south of the Bow River as far east as Lake McGregor; then northerly through Gleichen to the Rosebud River. I worked on westerly through Irricana and Crossfield into the foothill country. I completed my season's operations west of Carstairs, completing all work west of the C. & E. Railway as far north as Township 30.

Attached is a list of surveys and examinations.

Your obedient servant,

W. H. YOUNG,

District Surveyor and Engineer.

NEW ROADS.

Survey of new road in sections 20 and 29-20-29-4.
 Survey in section 23-17-29-4.
 Survey through sections 27 and 34-18-2-5.
 Survey of new road in sections 5/8/9-20-28-4.
 Survey of new road in sections 1/12-27-22-4 and sections 6/7-27-21-4.
 Survey of new road through sections 28/29/30-29-5-5 and sections 25/26/27/28/33-29-6-5.
 Survey of Blind Line road north of sections 1 to 6 inclusive, 30-2-5 and north of section 1-30-3-5.
 Survey of Blind Line north of section 1-20-25-4.
 New road in section 28-22-21-4.
 New road in section 35-20-19-4.

SURVEYS CHANGED

Change of survey in sections 15/16-16-29-4.
 Change of survey in section 17-20-28-4.
 Change of survey in section 21-28-4-5.

SURVEYS CHECKED

Re-checking of survey in sections 3/4-28-1-5.
 Re-checking of survey in section 26-29-29-4.

DIVERSIONS.

Diversion in sections 23 and 24-30-1-5.
 Diversion in section 18-20-24-4.
 Diversion in section 30-19-24-4.
 Diversion in sections 21/28/29-20-23-4.
 Diversion in section 1-20-24-4.
 Diversions in sections 13 and 2-20-24-4.
 Diversion in sections 34/35/36-18-23-4.
 Diversion in sections 31-18-22-4.
 Diversion in section 35-17-22-4 across Snake Creek.
 Diversion in section 5-17-22-4.
 Diversion in N. W. section 14-17-22-4.
 Diversion in sections 6/7-18-22-4.
 Diversion in section 22-17-22-4.
 Diversion in sections 20 and 21-17-22-4.
 Diversion in section 4-22-21-4.
 Diversion in section 31-21-20-4.

Diversion in sections 9/10/15/16-23-21-4.
 Diversion in section 2-23-21-4.
 Diversion in sections 22/23-25-22-4.
 Diversion in section 29-29-28-4.
 Diversion in section 7-29-28-4.
 Diversion in sections 4/5-28-1-5.
 Diversion in section 27-28-1-5.
 Diversion in section 7-28-1-5.
 Diversion in section 10-28-2-5 and in sections 15/22-28-2-5.
 Diversion in sections 6/7-29-2-5 and in section 12-29-3-5.
 Diversion in section 12-28-3-5.
 Diversion in sections 7/8-28-2-5.
 Diversion in section 9-28-2-5.
 Diversion in section 19-27-4-5.
 Diversion in sections 19/20/29-27-4-5.
 Diversion in sections 11/13/14-28-4-5.
 Diversion in section 5-29-3-5.
 Diversion in section 3-29-4-5.
 Diversion in section 7-29-3-5.
 Diversion in section 12-29-4-5.
 Diversion in section 10-29-4-5.
 Diversion in sections 29/32/33-29-5-5.
 Diversion in section 4-30-5-5.
 Diversion in section 5-30-5-5.
 Diversion in sections 22/23/24-29-5-5.
 Diversion in section 21-29-4-5.
 Diversion in section 19-29-4-5.
 Diversion in section 20-29-4-5.
 Diversion in section 29-29-4-5.
 Diversion in section 9-22-17-4.
 Diversion in sections 20/30-27-27-4.
 Diversion in section 12-28-29-4.
 Diversion in sections 31/36-28-27/28-4.
 Diversion in sections 5/6/7-29-27-4.

MISCELLANEOUS

Staking corners for Court House, Medicine Hat.
 Taking levels for contours in section 17-24-3-5.
 Levels for sewer, etc., from Agricultural College, Claresholm.
 Location of corners sections 7/18-25-15-4 for road to ferry.

EXAMINATIONS.

Examination re bridge site in section 24-26-4-5.
 Examination of road allowance sections 7/8-26-4-5.
 Examination and cross section Elbow River, section 19-23-1-5.
 Examination re new road through section 30-23-1-5.
 Examination and cross section of Bow River southwest of Cheadle on Blackfoot Indian Reserve.
 Examination re roads across sections 31/32-24-2-5.
 Examination and cross section of Red Deer River, section 4-22-13-4.
 Examination and cross section Bow River, section 13-17-17-4.
 Cross section railway east section 24-31-2-5.
 Examination of roads leading into Irricana.
 Cross section proposed bridge site (C.P.R.) 27/28-25-27-4.
 Examination of proposed road up Big Hill Creek, sections 3/10/11/12/13-26-4-5 and sections 33/18/19/20/29/30-26-3-5.
 Examination of roads leading to ferry in section 33-22-25-4.
 Examination of road to replace surveyed road through sections 4/5/8-21-3-5.
 Examination of proposed road (new) in 27/28-5-5.
 Examination of road leading to bridge in section 3-21-19-4.
 Examination of road leading to ferry in sections 7/18-25-15-4.
 Examination and staking of road in section 12-15-23-4 and sections 4/5/6-15-24-4.

Examination of road between sections 7/12-29-27/28-4.
Examination and cross section of road allowance east of section 16-25-1-5.
Examination re closing of trail through sections 19/20/21-28-3-5.
Examination of surveyed road in section 19-29-5-5.
Examination re corners, etc., section 28-30-4-5.
Examination of road allowance sections 27/28-28-27-4.
Examination of diversion in section 4-28-1-5.

THE MINES BRANCH

EDMONTON, January 31st, 1914.

JOHN STOCKS, ESQ.,

Deputy Minister of Public Works,

Edmonton, Alta.

SIR,—I have the honour to submit my report for the year ending December 31st, 1913.

The total amount of coal produced in the Province during the year was 4,306,346 short tons, which is an increase of 859,997 tons over the amount produced during the year 1912.

The Coal Mines Act, which had been in force in the Province for several years and which had been amended from time to time at recent sessions of the Legislature, had become rather unwieldy. The Government, therefore, appointed a Commission to go thoroughly into the whole question of mining regulations, with the result that a complete new Act was prepared and placed before the Legislature. This Act was passed and assented to by the Lieutenant-Governor in Council on March 25th, 1913, and came into force on August 1st of the same year. The Act, which is known as The Mines Act, appears to be working very satisfactorily.

On September 17th, 1913, "Rules for the Installation and Use of Electricity in or About Mines" were passed by Order-in-Council and are now in force. These rules are for the purpose of regulating the use of electricity in or about mines, and should do a great deal towards the prevention of accidents from this cause. Among other things, they provide that a qualified electrician shall be appointed at all mines where electricity is used. This electrician is responsible for seeing that the plant, etc., is kept in good repair.

The amount of coal produced per person employed during the year 1913 shows a still further increase over previous years. This is due to a great extent to the increased use of coal-cutting machinery in the lignite field.

The number of tons of coal produced per pound of explosive used has increased considerably in the Crow's Nest Pass district, although I regret to note that the number of tons of coal produced per pound of explosive used shows a decrease in the other districts.

In a number of the mines in the Lethbridge district, where safety lamps are not required, Pellet powder is being used, and I trust that before the end of the present year, most of the mines in this district will be using powder of this nature.

Owing to the presence of gas in the lignite mines, it has been found necessary to install safety lamps in a number of cases. In all cases, the safety lamps installed are of the Wolf type, with the exception of the No. 6 mine, operated by the Department of Natural Resources of the Canadian Pacific Railway Co., near Lethbridge, where electric lamps have been installed.

There is a growing tendency to use gasoline locomotives for haulage purposes, particularly in the Crow's Nest Pass mines, and in order that those locomotives can be operated under as safe conditions as possible, it is my intention to have prepared, some time during the year, rules governing their use. These rules will be put into force at the earliest opportunity.

You will note by referring to the attached tables, that a large number of accidents have taken place in the smaller mines. Of the 28 fatal accidents which occurred in the Province, six occurred in mines which produced less than 50,000 tons during the year; seven in mines which produced from 50,000 to 100,000 tons; eight in mines which produced from 100,000 to 200,000 tons, and seven in mines which produced over 200,000 tons. This is no doubt due to the fact that the smaller mines are under the charge of men who do not hold First Class certificates, and who are not so conversant with The Mines Act as the persons who are in charge of the larger mines. The Inspectors again report that they find considerable difficulty in getting the provisions of The Mines Act complied with at the smaller mines.

A large percentage of accidents, particularly in mines in the Lethbridge field, where mechanical haulage is used, are caused by persons riding on cars. As in most cases, this is a contravention of The Mines Act, steps are being taken to have this practice stopped.

Considerable progress has been made during the past year with the installation of telephones in the larger mines. These telephones save a considerable expense in the operation of a mine and are also very useful in obtaining assistance quickly in case of an accident.

You will note that there were 72 mines abandoned during the year 1913. A large number of these mines, however, which are shown as being abandoned, were only opened up for the purpose of prospecting for coal and have been closed up until such time as railway connection has been made with them.

Up to December 31st, 1913, about 40 per cent. of the Town of Frank had been moved from the danger zone under Turtle Mountain. As the Canadian Coal Consolidated, Ltd., which was operating the mines at Frank went into liquidation some time ago, very little moving has been done. I understand, however, that it is the intention to have this company reorganized and to have mining operations commenced again, when it is likely that the remainder of the town will be moved.

Considerable difficulty has been experienced in obtaining the Annual Returns as required by Section 42 of The Mines Act, and I believe it will be necessary for proceedings to be instituted against certain

of the operators in order to compel them to comply with this Section of the Act.

During the year the District Inspectors have obtained samples of coal from several mines in the Province; these have been forwarded to the Division of Fuels and Fuel Testing of the Mines Branch at Ottawa, and I understand we will receive the reports of these tests within the next few weeks.

There are 4,132 lamps of the Wolf pattern in use in the Province; these lamps are all fitted with internal lighters and magnetic locks. I regret, however, to report that the Cammore Coal Co., Ltd., and the Canadian Coal Consolidated, Ltd., are still using lamps of the old type.

In the lignite field, 54.35 per cent. of the total output was mined by machinery. No coal-cutting machinery is used in the bituminous or anthracite coal fields.

You will note from the attached tables that the output of coal from the Province for the year 1913 has increased approximately 500 per cent. during the last eight years. The output, however, during the year 1913 would have been considerably larger had it not been for the extremely mild weather which we had during the latter part of the year and in consequence of which, the consumption of domestic coal was considerably reduced. The steam coal market was also reduced as the railway companies have laid off during the year a large number of train crews.

The branch line from Edson on the main line of the Grand Trunk Pacific Railway into the mines operated by the Mountain Park Coal Co., Ltd., was completed and is now in operation, so that a much increased output will be obtained from those mines during the present year.

The coal obtained from this part of the country is a high grade steam coal and compares favourably with any coal in Western Canada.

The Pembina Coal Co., Ltd., which has connections with the main lines of both the Grand Trunk Pacific Railway and the Canadian Northern Railway has completed a plant during the past year which is capable of producing from 1,000 to 1,200 tons of coal per day.

The Gainford Collieries, Ltd., which is situated on the main line of the Grand Trunk Pacific Railway is at present erecting a plant which is capable of producing 1,000 tons per day.

These two last mentioned mines are situated about 50 miles west of Edmonton and produce a domestic coal of high quality.

A considerable amount of coal mining has also been done in the neighborhood of Edmonton by means of the stripping process. This process is removing the surface clay by means of a steam shovel, after which the coal is quarried and loaded direct into the railway cars.

The line at present being built from Red Deer into the mines being developed by the Brazeau Collieries, Ltd., will be completed about March 1st, 1914, so that another steam coal field with a large area will be opened up. A modern and up-to-date plant capable of handling 1,500 tons per day is being erected by this company.

A large amount of development has also taken place during the past year in southern Alberta and a number of plants of modern design have been installed.

The province is divided up into four districts, viz: Crow's Nest Pass, Lethbridge, Calgary, and Edmonton. Mr. Andrew N. Scott is inspector for the Crow's Nest Pass district with headquarters at Lethbridge; Mr. Samuel A. Jones is inspector for the Lethbridge district with headquarters at Lethbridge; Mr. Francis Aspinall is inspector for the Calgary district with headquarters at Calgary, and Mr. Elijah Heathcote is inspector for the Edmonton district with headquarters at Wetaskiwin.

It will be noted from the following tables that the output for the year 1913 shows an increase of 859,997 tons over the year 1912.

Year.	Output in tons for N.W.T. (Alberta and Saskatchewan).	Output in tons, Alberta.
1901	346,649	*
1902	510,674	.....
1903	622,939	.....
1904	782,931	.....
1905 .....	.....	811,228
1906 .....	.....	1,385,000
1907 .....	.....	1,834,745
1908 .....	.....	1,845,000
1909 .....	.....	2,174,329
1910 .....	.....	3,036,757
1911 .....	.....	1,694,564
1912 .....	.....	3,446,349
1913 .....	.....	4,306,346

The above figures show that there has been an increase during the year 1913 of 24.95 per cent. over the year 1912.

CLASSIFICATION OF OUTPUTS DURING THE YEAR 1913.

	Tons.
Lignite Coal	1,763,225
Bituminous Coal	2,374,401
Anthracite Coal	168,720
Coal used in coke production	104,012
Coke produced	65,167
Briquettes produced	130,861

The above table shows there has been an increase in the output of Lignite coal 31.44 per cent. over the year 1912, an increase of 23.25 per cent. in the output of Bituminous coal, over the year 1912 and a decrease in the output of Anthracite coal of 5.52 per cent. under the year 1912.

The following table indicates how the total output of coal from the Province was disposed of:

Tons of 2,000 lbs.	Crow's Nest Pass.	Calgary.	Leth-bridge.	Edmon-ton.	Total.
Sold for consumption in Alberta	1,441,327	364,350	251,402	630,553	2,687,632
Sold for consumption in other provinces	98,397	58,778	533,820	101,333	792,328
Sold for export to the United States	134,673		3,528		138,201
Total Sales	1,674,397	423,128	788,750	731,886	3,618,161
Used in making briquettes...		99,623			99,623
Used in making coke.....	104,012				104,012
Used under colliery boilers..	71,693	50,905	112,528	41,817	276,947
Stock on hand at beginning of year	4,729	2,907	10,700	2,350	20,686
Stock on hand at end of year.	3,887	39,999	2,293	2,129	48,308
Slack put on waste heap....	175	16,709	73,149	89,948	179,981
Total output	1,849,435	627,461	966,020	863,430	4,306,346

The following table indicates how the Bituminous coal outputs from the different inspection districts in the Province were disposed of:

Tons of 2,000 lbs.	Crow's Nest Pass.	Calgary.	Leth-bridge.	Edmon-ton.	Total.
Sold for consumption in Alberta	1,441,327	249,199		198,712	1,889,238
Sold for consumption in other provinces	98,397	2,925		9,866	111,188
Sold for export to the United States	134,673				134,673
Total Sales	1,674,397	252,124		208,578	2,135,099
Used in making coke.....	104,012				104,012
Used under colliery boilers..	71,693	13,394		6,691	91,779
Stock on hand at beginning of year	4,729	2,000		2,350	9,079
Stock on hand at end of year.	3,887	36,562		1,790	42,239
Slack put on waste heap....	175	1,500		8,677	10,352
Total	1,849,435	301,580		223,386	2,374,401

The following table indicates how the Anthracite coal and Briquette outputs of the Province were disposed of:

Tons of 2,000 lbs.	Calgary District.	
	Coal.	Briquettes.
Sold for consumption in Alberta.....	21,721	81,472
Sold for consumption in other provinces.....	11,457	49,296
Sold for export to the United States.....		
Total Sales	33,178	130,768
Used under colliery boilers.....	33,869	
Used in making briquettes.....	99,623	
Stock on hand at beginning of year.....	532	72
Stock on hand at end of year.....	2,582	165
Total	168,720	130,861

The following table indicates how the Lignite coal outputs from the different inspection districts in the Province were disposed of:

Tons of 2,000 lbs.	Crow's Nest Pass.	Calgary.	Leth- bridge.	Edmon- ton.	Total.
Sold for consumption in Alberta		93,430	251,402	431,841	776,673
Sold for consumption in other provinces		44,396	533,820	91,467	669,683
Sold for export to the United States			3,528		3,528
Total Sales		137,826	788,750	523,308	1,449,884
Used under colliery boilers..		3,646	112,528	35,126	151,300
Stock on hand at beginning of year		375	10,700		11,075
Stock on hand at end of year.		855	2,293	339	3,427
Slack put on waste heap		15,209	73,149	81,271	169,629
Total		157,161	966,020	640,044	1,763,225

The following table indicates how the output of coke was disposed of:

	Tons of 2,000 Lbs.
Sold for consumption in Alberta	318
Sold for consumption in other Provinces.....	64,679
Sold for export to the United States .....	.....
Total Sales	64,997
For Colliery use	170
Total output	65,167

The Crow's Nest Pass is the only district in the Province in which Coke is produced.

The following summary shows the total sales of Coal, Briquettes and Coke of the Province:

	Tons of 2,000 Lbs.			
	Sold for Consumption in Alberta	Sold for Consumption in other Provinces.	Sold for Export to United States	Total
Bituminous coal.....	1,889,238	111,188	134,673	2,135,099
Anthracite coal.....	21,721	11,457		33,178
Lignite coal.....	776,673	669,683	3,528	1,449,884
Total sales.....	2,687,632	792,328	138,201	3,618,161
Briquettes	81,472	49,296		130,768
Coke	318	64,679		64,997

The following table shows the classification of persons employed above and below ground in the Bituminous coal fields:

AVERAGE NUMBER EMPLOYED.

Character of Labour	Crow's Nest Pass Dist.		Calgary District		Edmonton District		Total	
	Above	Below	Above	Below	Above	Below	Above	Below
Supervision and clerical assistance	58	55	19	25	15	18	92	98
Miners and Helpers	..	1,139	..	261	..	184	..	1,584
Mechanics or skilled labour.	137	49	53	80	33	2	223	131
Other employees	432	606	69	90	101	136	602	832
Total	627	1,849	141	456	149	340	917	2,645

The following table shows the classification of persons employed above and below ground in the Lignite coal fields:

Character of Labour	Calgary District		Lethbridge District		Edmonton District		Total	
	Above	Below	Above	Below	Above	Below	Above	Below
Supervision and clerical assistance	36	29	53	59	60	47	149	135
Miners and Helpers	..	373	..	1,073	..	641	..	2,087
Mechanics or skilled labour.	39	10	109	101	89	37	237	148
Other employees	116	44	295	396	291	119	702	559
Total	191	456	457	1,629	440	844	1,088	2,929

The following table shows the classification of persons employed above and below ground in the Bituminous, Anthracite and Lignite coal fields, respectively:

AVERAGE NUMBER EMPLOYED

Character of Labour	Bituminous		Anthracite		Lignite		Total	
	Above	Below	Above	Below	Above	Below	Above	Below
Supervision and clerical assistance	92	98	10	8	149	135	251	241
Miners and Helpers	..	1,584	..	184	..	2,087	..	3,855
Mechanics or skilled labour.	223	131	56	2	237	148	516	281
Other employees	602	832	160	69	702	559	1,464	1,460
Total	917	2,645	226	263	1,088	2,929	2,231	5,837

PER CAPITA PRODUCTION OF MINES IN THE BITUMINOUS, ANTHRACITE AND LIGNITE COAL FIELDS RESPECTIVELY

Character of Coal	Tons of 2,000 Lbs.				
	Gross tons of coal mined	Total number of men employed	Tons of coal mined per man	No. of men employed underground	Tons of coal mined per man employed underground
Bituminous coal..	2,374,401	3,562	666	2,645	897
Anthracite coal...	168,720	489	345	263	641
Lignite coal	1,763,225	4,017	438	2,929	601

PER CAPITA PRODUCTION OF MINES IN THE PROVINCE.

Year	Gross tons of coal mined	Total No. of men employed	Tons of coal mined per man	No. of men employed underground	Tons of coal mined per man employed underground
1906	1,385,000	2,800	494	2,000	692
1907	1,834,745	3,600	509	2,700	679
1908	1,845,000	3,780	488	2,681	688
1909	2,174,329	5,207	417	3,893	566*
1910	3,036,757	5,818	504	4,090	742
1911	1,694,564	6,689	253	4,517	375**
1912	3,446,349	6,661	517	4,861	708
1913	4,306,346	8,068	533	5,837	737

* During the year 1909 a strike affecting all the larger mines in the province lasted for a period of three months.

** During the year 1911 a strike affecting all the larger mines in the province lasted for a period of eight months.

The following table shows the amount of coal mined in the different geographical districts of the Province during the year 1913.

District.	Number of Persons Employed	Lignite	Bituminous	Anthracite
Crow's Nest Pass.....	2,331		1,772,575	
Pincher Creek.....	145		76,860	
Lethbridge	1,486	744,967		
Taber	506	205,953		
Bow Island.....	69	12,626		
Milk River	25	2,474		
Banff	1,108		270,220	168,720
Medicine Hat	93	38,451		
Okotoks	8	1,285		
Aldersyde	39	10,688		
Carstairs	94	1,240	31,360	
Carbon	26	5,758		
Trochu	3	1,453		
Drumheller	226	52,894		
Three Hills	43	7,200		
Lacombe	127	38,192		
Wetaskiwin	150	44,861		
Edmonton	542	255,620		
St. Albert	83	7,448		
Tofield	82	43,436		
Cardiff	262	247,201		
Pembina	130	41,478		
Yellowhead Pass	314		88,357	
Jasper Park	176		135,029	
Total	8,068	1,763,225	2,374,401	168,720

SUMMARY OF STATISTICS FOR THE YEAR 1913.

Number of mines in operation	289
Number of new mines opened	45
Number of mines abandoned	72
Number of tons of coal mined.....	4,306,346
Number of tons of coke produced	65,167

Number of tons of briquettes produced	130,861
Average number of persons employed inside mines	5,837
Average number of persons employed outside mines	2,231
Average number of persons employed inside the mines during the month of December	6,610
Average number of persons employed outside the mines during the month of December	2,253
Number of separate accidents causing loss of life	25
Number of deaths caused by accidents inside the mines	24
Number of deaths caused by accidents outside the mines	4
Number of serious accidents outside the mines	9
Number of serious accidents inside the mines	50
Number of slight accidents inside the mines	71
Number of slight accidents outside the mines	13
Number of Mine Managers' certificates issued	6
Number of Pit Boss' certificates issued	19
Number of Fire Boss' certificates issued	14
Number of Examiners' certificates issued	7
Number of Mine Rescue certificates issued	51
Number of persons holding first class certificates	151
Number of persons holding second class certificates	170
Number of persons holding third class certificates	301
Number of persons granted Provisional Overman's certificates	103

ELECTRICITY.

On September 17th, 1913, Rules for the Installation and Use of Electricity in or about Mines were passed by Order-in-Council and went into effect on that date.

According to the returns received from the different mines electricity was used at 29 mines in 1913. The Crow's Nest Pass was the most active district in this respect during the year as will be seen from the following:—

Lethbridge	7	mines	using	electricity
Crow's Nest Pass	10	"	"	"
Calgary	6	"	"	"
Edmonton	6	"	"	"

The Rules for the Installation and Use of Electricity in or about Mines require a return to be made to the Department on or before January 21st of each year, giving the size, type and any other particulars which may be required, of electrical apparatus in use above and below ground in such mines as are governed by the provisions of The Mines Act. A summary of this return as regards the horse-power of electrical apparatus in use is given below:

District	Above Ground	Underground	Total
	H.P.	H.P.	H.P.
Lethbridge	1,235.5	417	1,652.5
Crow's Nest Pass	2,246.5	260	2,506.5
Calgary	262	...	262
Edmonton	485.9	470	955.9

A closer estimate of the extent to which electricity is used in the different districts may be made by considering the number of tons of coal raised per electrical horse-power employed in all the mines under The Mines Act. The following table will give this information:

TONS OF COAL PER ELECTRICAL HORSE-POWER EMPLOYED.

District.	Tons of Coal Mined in 1913.	Above Ground	Below Ground	Total Above and Below Ground
Lethbridge	966,020	781	2,316	584
Crow's Nest Pass.....	1,849,435	823	7,113	737
Calgary	627,461	2,394	.....	2,394
Edmonton.	863,430	1,776	1,837	903

This table is useful to show by comparison with future years the growth or decline in the use of electricity in the Province as a whole and in each district taken separately.

The number of electrically driven coal-cutting machines in use at the end of the year was four.

During the year there was only one accident in connection with the use of electricity reported. This accident, which was fatal was due to the attendant in charge of the power plant at the Bellevue mine operated by the West Canadian Collieries, Limited, receiving an electric shock which resulted from a leak on the machine. The accident took place before the Rules became effective and could not possibly have occurred if these rules had been in force and had been complied with.

COAL-CUTTING MACHINERY.

District.	Number of Coal Cutting Machines Operated by:		Tons of Coal Mined by:	
	Electricity.	Compressed Air	Electricity	Compressed Air.
Crow's Nest Pass	..	..	..	..
Lethbridge	1	147	870	757,869
Calgary	..	3	..	4,000
Edmonton	3	13	120,000	86,612
Total	4	163	120,870	848,481

EXPLOSIVES.

The following tables showing the quantity of the various kinds of explosives used during the year in mines, the estimated number of shots fired, the methods of firing them and the number of miss-fires recorded, have been compiled from returns furnished by the mine owners:

QUANTITY OF EXPLOSIVES USED IN LBS.

Name of Explosive	Crow's Nest Pass	Lethbridge	Calgary	Edmonton	Total
Black Powder ...	350	208,904	66,839	179,653	455,746
Monobel	162,219	15,513	66,420	64,430	308,582
Samsonite .....	....	....	5,952	....	5,952
Dynamite	52,849	21,557	20,072	8,006	102,484
Nobel Amonia ...	5,227	....	....	8,572	13,799
Total	220,645	245,974	159,283	260,661	886,563

ESTIMATED NUMBER OF SHOTS FIRED.

District.	By Electricity	By Fuse	By Squibs	Total
Crow's Nest Pass	164,606	59,944	....	224,550
Lethbridge	30,805	25,902	166,543	223,250
Calgary	107,043	39,938	24,212	171,193
Edmonton	80,714	176,569	1,354	258,637
Total	383,168	302,353	192,109	877,630

NUMBER OF MISS-FIRE SHOTS RECORDED.

District	By Electricity	By Fuse	By Squibs	Total
Crow's Nest Pass	889	280	..	1,169
Lethbridge	43	27	117	187
Calgary	639	221	206	1,066
Edmonton	138	396	7	541
Total	1,709	924	330	2,963

No statistics are available as to the causes of the miss-fires.

The following table shows the number of tons of coal produced per pound of explosive used in each district:

DISTRICT	No. of Tons of Coal Produced	No. of Lbs. of Explosive Used	No. of Tons of Coal Produced Per Lb. of Explosive Used
Crow's Nest Pass	1,849,435	220,645	8.38
Lethbridge	966,020	245,974	3.92
Calgary	627,461	159,283	3.93
Edmonton	863,430	260,661	3.31
Total	4,306,346	886,563	4.85

The following table shows the average number of days in each month on which coal was drawn in each district:

District	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average No. of Days Worked Per Month.
Crow's Nest Pass...	21.0	21.1	20.4	20.5	20.9	21.3	22.0	23.0	23.8	25.1	21.2	21.5	21.8
Lethbridge	16.0	15.1	15.0	11.4	12.3	9.7	10.9	11.8	14.6	18.6	21.1	20.5	14.7
Calgary	20.6	19.1	18.5	14.7	14.8	13.9	15.4	16.7	22.0	25.7	26.6	25.2	19.4
Edmonton	21.0	18.3	18.5	14.2	15.4	18.7	12.5	12.9	17.9	16.7	21.8	21.0	16.9
Total	19.6	18.4	18.1	15.2	15.8	14.6	15.2	16.1	19.5	21.5	22.6	22.0	18.2

LIST OF PROSECUTIONS UNDER THE COAL MINES ACT.

Mine in Which Contraven- tion was Committed.	Description of Defend- ant	Offence Charged.	Result of Proceedings	Penalty	Costs
Hillcrest Collieries, Ltd.	Rope rider	Failure to place drag behind cars on incline	Convicted	\$5.00	\$4.50
West. Canada Collieries, Ltd. (Bellevue)	Fire Boss	Failed to examine place and make a true report thereof	Convicted	50.00	\$4.75
West. Canada Collieries, Ltd. (Bellevue)	Fire Boss	Failed to examine place and make a true report thereof	Convicted	50.00	\$4.75
West. Canada Collieries, Ltd. (Bellevue)	Miner	Failed to report presence of gas	Convicted	10.00	\$4.25
West. Canada Collieries, Ltd. (Bellevue)	Miner	Failed to report presence of gas	Convicted	10.00	\$4.25

I also laid information against Louis Leonardie for an offence committed in the mine operated by the International Coal & Coke Co., Ltd., at Coleman, where he improperly used a safety lamp and did an act which was likely to endanger the safety of the mine. Leonardie was, however, charged with assault and sentenced to twelve months' imprisonment without the option of a fine. In consequence of this, I did not proceed with the charge laid under The Mines Act.

MINES OPENED DURING THE YEAR 1913.

NO.	ADDRESS	OPERATED BY	CHARACTER OF COAL
377	Grassy Lake....	Morning Star Coal Co.....	Lignite
378	Rosedale.....	J. N. Murray.....	"
379	Redcliff.....	Redcliff Pressed Brick Co., Ltd.....	Shale
380	Delia.....	F. R. Mason.....	Lignite
381	Lucky Strike....	Arthur Bembridge	"
382	Windy Ridge....	George Winslow Thorpe.....	"
383	Munson.....	F. T. Caswell.....	"
384	Three Hills....	Union Coal Co., Ltd	"
385	Trochu.....	James S. McGuire.....	"
386	Namao.....	Cameron Brothers	"
387	Halkirk.....	Cable Brothers & Williams.....	"
388	Rocky Mountain House.....	The Saunders Creek Coal Co., Ltd..	Bituminous
389	Namao.....	Frank Smith	Lignite
390	Lucky Strike....	W. S. Abel	"
391	Taber.....	Jean Bilteryst	"
392	Edmonton.....	The Peace River Collieries Ltd	Bituminous
393	Blairmore.....	North Kootenay Pass Coal Co.....	"
394	Burmis.....	Palmer Coal Co.....	"
395	Picture Butte...	Michael Molloy	Lignite
396	Blairmore.....	West Canadian Collieries Ltd.	Bituminous
397	Namao.....	Buthie, Wilcox & Gwilliam.....	Lignite
398	Fertility.....	Baxter & Kemp.....	"
399	Prosby.....	Mike Koffler.....	"
400	Winnifred.....	Robert Salisbury	"
401	Lucky Strike....	William Black	"
402	Drumheller.....	Stocum Howland	"
403	Drumheller.....	R. E. Bishop	"
404	Halkirk.....	F. Bergram	"
405	Magrath.....	William H. McIntyre	Semi-Bituminous
406	Lineham.....	The Black Diamond Oil Fields Ltd ..	Bituminous
407	Milk River....	McAdow & Burnham.....	Lignite
408	Coleman.....	A. J. McGuire.....	Bituminous
409	Raymond.....	John H. Wall	Lignite
410	Whitla.....	H. F. Ensign.....	"
411	Magrath.....	Samuel Pyrah	"
412	Wabamun.....	New Era Coal Co., Ltd.....	"
413	Raymond.....	Joseph Davis Simmons.....	"
414	Buford.....	Dan Popik	"
415	Parr.....	Charles and Robert Douglas	"
416	Okotoks.....	P. Burns Coal Mines Ltd.....	Bituminous
417	Castor.....	Shaw & Carter.....	Lignite
418	Castor.....	M. D. Galbraith.....	"
419	Wabamun.....	The Wabamun Power & Coal Co., Ltd.	"
420	Namao.....	Clarke & Davis.....	"
421	Altorado.....	Daniel T. Sheets	"

MINES OPERATED DURING THE YEAR 1913.

NO.	ADDRESS	OPERATED BY	CHARACTER OF COAL
2	Canmore.....	The Canmore Coal Co., Ltd.....	Bituminous
3	Lethbridge.....	Canadian Pacific Railway Co.....	Lignite
8	Clover Bar.....	William Daly	"
9	Edmonton.....	The Clover Bar Coal Co., Ltd.....	"
28	Namao.....	Stewart & Campbell.....	"
29	Edmonton S. ..	White Star Coal Co., Ltd.....	"
30	Black Diamond.	Ad. McPherson.....	Semi-Bituminous
32	Cardiff.....	The Cardiff Collieries Ltd.....	Lignite
37	Medicine Hat...	H. & W. Ansley.....	"
40	Hillcrest.....	Hillcrest Collieries Ltd.....	Bituminous
43	Edmonton.....	William Humberstone.....	Lignite
46	Edmonton.....	Carmie H. May.....	"
48	Frank.....	The Canadian Coal Consolidated Ltd..	Bituminous
49	Edmonton.....	Edmonton Standard Coal Co., Ltd....	Lignite
53	Carbon.....	The Knee Hill Coal Co.....	"
54	Lethbridge.....	James Ashcroft	"
55	Lethbridge.....	John Rollingson	"
56	Lethbridge.....	Thomas H Baker.....	"
57	Pincher Creek..	Thomas Nash	Bituminous
59	Lundbreck.....	Marlow Brothers	Semi-Bituminous
64	Lille.....	West Canadian Collieries Ltd.....	Bituminous
69	Edmonton.....	Keith & Fulton.....	Lignite
72	Blackfoot Indian Reserve.....	Blackfoot Indians.....	"
74	Edmonton.....	Milner & Shoeman.....	"
75	Namao.....	Clarke & Laughlan.....	"
77	Lundbreck.....	William Welch	Semi-Bituminous
80	Bankhead.....	Canadian Pacific Railway Co.....	Anthracite
82	Taber.....	The White Ash Collieries Ltd.....	Lignite
87	Bellevue.....	West Canadian Collieries Ltd.....	Bituminous
88	Coleman.....	The International Coal & Coke Co., Ltd.	Bituminous
89	Clover Bar.....	The Great West Coal Co., Ltd.....	Lignite
90	Clover Bar.....	Byers Brothers	"
91	Clover Bar.....	R. P. Ottewell	"
92	Royal View.....	Royal Collieries Ltd.	"
99	Clover Bar.....	The Great West Coal Co., Ltd.....	"
101	Namao.....	George E. Fiske.....	"
103	Carstairs.....	G. H. Knowlton.....	Bituminous
104	Diamond City..	Diamond Coal Co., Ltd.....	Lignite
105	Taber.....	Canada West Coal Co., Ltd.	"
106	Taber.....	The White Ash Collieries Ltd.....	"
112	Three Hills.....	Three Hills Coal & Development Co., Ltd.	"
113	Three Hills.....	Nicholls & Abriel.....	"
114	Elcan.....	Independent Coal Co., Ltd.....	"
115	Carbon.....	Dodds, Currie & Hoding.....	"
116	Three Hills.....	Charles Catchpole.....	"
120	Long View.....	George Allen	"
126	Passburg.....	The Leitch Collieries Ltd.....	Bituminous
129	Cardiff.....	The Alberta Coal Mining Co., Ltd....	Lignite
130	Elcan.....	Alberta Consolidated Coal Co., Ltd....	"
131	Taber.....	E. I. Fitzsimmons	"
132	Taber.....	Canadian Pacific Railway Co.....	"
133	Bellevue.....	Maple Leaf Coal Co.....	Bituminous
134	Reid Hill.....	Henderson Brothers	Lignite
135	Carmanagay....	Alexander McMillan	"
136	Long Coulee....	Henry Theriault	"

MINES OPERATED DURING THE YEAR 1913.—*Continued.*

NO.	ADDRESS	OPERATED BY	CHARACTER OF COAL
137	Reid Hill.....	W. J. Greenaway.....	Lignite
142	Three Hills.....	George Watson	"
143	Bowville.....	W. J. Bell	"
145	Pincher Creek..	Pincher Creek Coal Mining Co.....	Bituminous
148	Edmonton.....	Western Coals Ltd.....	Lignite
149	Tofield.....	J. J. McDevitt.....	"
150	Tofield.....	Tofield Coal Co Ltd..... (Consolidated with Mine No. 252)	"
151	Reid Hill.....	J. W. Brown.....	"
153	Burmis.....	Davenport Coal Co.....	Bituminous
155	Edmonton.....	The Dawson Coal Co. Ltd.....	Lignite
162	Magrath.....	Magrath Coal Co.....	"
165	Redcliff.....	Redcliff Brick & Coal Co., Ltd.....	"
166	Alix.....	J. P. Dweak.....	"
167	Nevis.....	R. W. K. Cousins.....	"
168	Nevis.....	Beaver Dam Coal Co.....	"
169	Mitford.....	Mitford (Calgary) Collieries Ltd.	Semi-Bituminous
170	Taber.....	Rock Springs Coal & Brick Co., Ltd..	Lignite
174	Coalhurst.....	Canadian Coal & Coke Co., Ltd.....	"
176	Magrath.....	Bradshaw Mining Co.....	"
177	Edmonton S. ..	Twin City Coal Co., Ltd.....	"
178	Namoo.....	Nash & Williams.....	"
179	Milk River.....	Evan T. Davies	"
180	Grassy Lake....	J. J. Mills.....	"
181	Taber.....	Consolidated Monarch Collieries Ltd..	"
183	Camrose.....	The Stoney Creek Collieries Ltd.....	"
185	Bow Island.....	David H. Long.....	"
187	Carbon.....	Wilfred Poxon	"
189	Carbon.....	Charles J. Hedstrom	"
192	Lethbridge.....	City of Lethbridge.....	"
193	Blairmore.....	West Canadian Collieries Ltd.....	Bituminous
194	Ghost Pine Cr'k.	Robert Cook	Lignite
196	Namoo.....	H. Spiers	"
198	Champion.....	W. E. Watkins	"
199	Beaver Mines...	Canadian Coal & Coke Co., Ltd.....	Bituminous
200	Little Plume....	Geddes, Day & Gibb.....	Lignite
201	Taber.....	The Golden West Coal Mining Co., Ltd.	"
202	Taber.....	Superior Coal Co., Ltd.....	"
203	Royal View.....	New Barnes Coal Co.....	"
204	Coleman.....	McGillivray Creek Coal Co., Ltd.....	Bituminous
205	Bow Island.....	A. A. Lindquist.....	Lignite
207	Burmis.....	The Carbon Hill Coal & Coke Co.....	Bituminous
209	Burmis.....	The Head Syndicate Ltd.....	Bituminous
211	Halkirk.....	H. V. Green.....	Lignite
212	Halkirk.....	Charles Hilker	"
213	Grassy Lake....	Samuel Ervine	"
214	Three Hills.....	Dick & Halbert.....	"
218	Champion.....	Ashmore & Ellis.....	"
219	Bituma.....	G. H. Knowlton.....	Bituminous
220	Bickerdike.....	The Yellowhead Pass Coal & Coke Co., Ltd.	"
221	Riviere Que | Barre.....	Riviere Que Barre Coal Co.	Lignite
222	Pincher Creek..	William McFarlane	Bituminous
223	Lethbridge.....	Adams Coal Mine Co., Ltd.	Lignite
224	Reid Hill.....	Henderson Brothers	"
226	Eyremore.....	Prairie Coal Co., Ltd.....	"
227	Evansburgh.....	The Pembina Coal Co., Ltd.....	"

MINES OPERATED DURING THE YEAR 1913.—*Continued.*

NO.	ADDRESS	OPERATED BY	CHARACTER OF COAL
228	Taber.....	White Ash Collieries Ltd.....	Lignite
229	Taber.....	Superior Coal Co., Ltd.....	"
231	Canmore.....	The Georgetown Colliers Ltd.....	Bituminous
232	Bawlf.....	Bawlf Collieries Ltd.	Lignite
233	Bickerdike.....	Canadian Coal & Coke Co., Ltd.....	Bituminous
234	Eyremore.....	Baker, Hoge & Baker.....	Lignite
236	Medicine Hat...	The Drowning Ford Coal Co.....	"
237	Cardiff.....	The Capital Coal Co., Ltd.....	"
238	Bow Island.....	Moses Simpson	"
240	Halkirk.....	S. G. Bevier.....	"
241	Dinant.....	The Spicer Coal Co., Ltd.....	"
242	Bawlf.....	C. P. Potter.....	"
243	Castor.....	James Wright	"
244	Camrose.....	The Stoney Creek Collieries Ltd.	"
245	Hastings Coulee	Bish Brothers & Le Gear.....	"
246	Castor.....	A. D. McCormack.....	"
247	Commerce.....	Chinook Coal Co., Ltd.....	"
248	Hastings Coulee	Bish Brothers & Company.....	"
249	Wanda.....	J. M. Schares.....	"
250	Round Hill.....	The Round Hill Collieries Ltd.	"
251	Daysland.....	Julius Wilkinson	"
252	Tofield.....	The Toffield Coal Co., Ltd.....	"
253	Pincher Creek...	A. D. McKinnon.....	Bituminous
254	Lethbridge.....	Heighes Brothers	Lignite
255	Gaetz Valley....	T. D. Conger.....	"
256	Rocky Mountain House.....	Brazeau Collieries Ltd.	Bituminous
259	Milk River.....	Erickson Brothers	Lignite
260	Wabamun.....	The Conner Coal Mining Co., Ltd.....	"
261	Coleman.....	P. A. Paulson	Bituminous
262	Sheerness.....	Smith, Oscar & McGarry.....	Lignite
263	Wabamun.....	Security Coal Mines Co., Ltd.....	"
264	Carmangay.....	Staveley Coal Mining Co.	"
265	Winnifred.....	W. H. Simanton	"
267	St. Albert.....	Canadian Coal & Coke Co., Ltd.....	"
268	Halkirk.....	Charles Strader.....	"
269	Halkirk.....	C. K. James	"
270	Bow Island.....	Arblaster & Lloyd	"
271	Milk River.....	C. E. Hollander.....	"
272	Bow Island.....	John S. Hutchison.....	"
273	Halkirk.....	Davis Coal Co.	"
274	Halkirk.....	Halkirk Collieries	"
275	Castor.....	Coalbeck Coal & Clay Products Co. Ltd.	"
276	Diamond City...	Blockett & Murray.....	"
277	Kippenville.....	Duncan Kippen	"
279	Milk River.....	Daniel G. McKay	"
280	Pocahontas.....	Jasper Park Collieries Ltd.....	Bituminous
281	Carstairs.....	G. H. Knowlton.....	"
282	Bickerdike.....	The Mountain Park Coal Co., Ltd.....	"
283	Clover Bar.....	The Great West Coal Co., Ltd.....	Lignite
284	Kimball.....	Big Chief Coal Mining Co., Ltd.....	"
285	Keho.....	Thomas Davis.....	"
286	Big Valley.....	Square Deal Mercantile Co.....	"
287	Big Valley.....	G. W. Davison.....	"
288	Gadsby.....	Bain & Fitts.....	"
289	Halkirk.....	Cable Brothers.....	"
290	Big Valley.....	R. T. Davison.....	"
291	Gadsby.....	James Wagner	"

MINES OPERATED DURING THE YEAR 1913.—*Continued.*

NO.	ADDRESS	OPERATED BY	CHARACTER OF COAL
292	Pincher Creek..	John Morris	Bituminous
293	Frank.....	Coal Securities Ltd.....	"
294	Grassy Lake....	George Gibson	Lignite
295	Pincher Creek..	Sparrow & Bert.....	Bituminous
296	Champion.....	William Ellis	Lignite
299	Standard.....	R. W. Brunmer.....	"
300	Pincher Creek..	Bullock Coal Mining Co.....	Bituminous
301	Big Valley.....	U. G. Robinson	Lignite
302	Rosenroll.....	Battle River Collieries Ltd.....	"
303	Three Hills....	George Watson	"
304	Castor.....	The Interprovincial Coal Co., Ltd.....	"
307	Long Coulee....	William John Sanderson.....	"
308	Lucky Strike...	H. B. Hughson.....	"
309	Lone Butte....	J. A. Haeckl	"
310	Pocahontas.....	North Alberta Coal Syndicate.....	Bituminous
311	Kimball.....	James Seale	Lignite
312	Halkirk.....	C. K. James	"
314	Lignite.....	Calgary Collieries Ltd.....	"
315	Trochu.....	David Halbert	"
316	Cardston.....	Cardston Coal & Coke Co.....	"
317	Drumheller....	Newcastle Coal Co., Ltd.....	"
318	Carbon.....	Duncan McKenzie	"
319	Wabamun.....	P. J. Mullen.....	"
320	Gadsby.....	Rider Brothers	"
321	Sheerness.....	Col. James Walker.....	"
322	Trochu.....	Trochu Coal Co.	"
323	Bow Island....	Arthur Morgan	"
324	Winnifred.....	Jules Lavenne	"
325	Castor.....	Excelsior Coal Co.....	"
326	Dewinton.....	W. M. Davis	Bituminous
327	Trochu.....	Nichol & Bradshaw.....	Lignite
328	Huxley.....	George C. Yard.....	"
329	Castor.....	John Heaney	"
330	Pincher Creek..	A. Link	Bituminous
331	Bow Island....	A. E. Mitchell	Lignite
332	Redcliff.....	Redcliff Clay Products Co., Ltd.....	"
333	Whitla.....	Richard See	"
334	Suffield.....	Robert McAllister	"
335	Drumheller....	Vulcan Coal Co., Ltd.....	"
337	Trochu.....	Frank Heyland	"
339	Coalspur.....	James A. Collins	Bituminous
340	Tofield.....	Dobell Coal Co. of Tofield, Ltd.....	Lignite
341	Propsy.....	Ferdinand Friedenberg	"
342	Windy Ridge...	I. C. Foote	"
343	Lethbridge....	A. J. McGuire	"
344	Winnifred.....	Dr. C. B. Munro	"
345	Bow Island....	C. F. Henry	"
346	Drumheller....	Rosedale Coal & Clay Products Co., Ltd.....	"
347	Drumheller....	Rose Deer Coal Mining Co., Ltd.....	"
348	Munson.....	Neisner & Daly.....	"
349	Drumheller....	Drumheller Coal Co., Ltd.....	"
350	Prairie Grange..	Northern Construction Co., Ltd.....	Bituminous
352	Gainford.....	The Gainford Collieries, Ltd.	Lignite
353	Burdett.....	William Roberts	"
354	Delia.....	Hand Hill Coal Co.	"
355	Munson.....	Munson Collieries	"
356	Seven Persons..	James H. Amos.....	"
357	Hillspring.....	Thomas Nash	Bituminous
358	Winnifred.....	William H. Simanton	Lignite

MINES OPERATED DURING THE YEAR 1913.—*Continued.*

NO.	ADDRESS	OPERATED BY	CHARACTER OF COAL
359	Black Diamond.	John A. Grant	Lignite
360	Standard.....	The Standard Coal & Development Co., Ltd.	"
361	Priddis.....	Joseph Woolings	"
362	Long View.....	Edward Little	"
363	Long View.....	L. F. Rathburn	"
364	Big Valley.....	The Big Valley Collieries Ltd.....	"
365	Red Deer.....	British Collieries Ltd.	Bituminous
366	Grassy Lake....	Joseph Holmes	Lignite
367	Drumheller.....	Midland Collieries Ltd.	"
368	Comrey.....	Dr. J. H. Duncan	"
369	Edmonton South	J. H. Petrie	"
370	Prosby.....	Stephen Schmidt	"
371	Bow Island.....	John Jacobson	"
372	Diamond City...	Bathurst Mining Co., Ltd.	"
373	Trochu.....	William Hedrich	"
374	Camrose.....	Schmidt & Wilson	"
375	Garden Plain...	T. A. Kain	"
376	Perbeck.....	Nelson & Johnson	"
377	Grassy Lake....	Morning Star Coal Co.	"
378	Rosedale.....	J. N. Murray	"
379	Redcliff.....	Redcliff Pressed Brick Co., Ltd.	Shale
380	Della.....	F. R. Mason	Lignite
381	Lucky Strike...	Arthur Bembridge	"
382	Windy Ridge...	George Winslow Thorpe	"
383	Munson.....	F. T. Caswell	"
384	Three Hills.....	Union Coal Co., Ltd.....	"
385	Trochu.....	James S. McGuire	"
386	Namao.....	Cameron Brothers	"
387	Halkirk.....	Cable Brothers & Williams	"
388	Rocky Mountain House.....	The Saunders Creek Coal Co., Ltd....	Bituminous
389	Namao.....	Frank Smith	Lignite
390	Lucky Strike...	W. S. Abel.....	"
391	Taber.....	Jean Bilteryst	"
392	Edmonton.....	The Peace River Collieries Ltd.....	Bituminous
393	Blairmore.....	North Kootenay Pass Coal Co.	"
394	Burnmis.....	Palmer Coal Co.	"
395	Picture Butte...	Michael Molloy	Lignite
396	Blairmore.....	West Canadian Collieries Ltd.....	Bituminous
397	Namao.....	Duthie, Wilcox & Gwilliam.....	Lignite
398	Fertility.....	Baxter & Kemp.....	"
399	Prosby.....	Mike Koffler	"
400	Winnifred.....	Robert Salisbury	"
401	Lucky Strike...	William Black	"
402	Drumheller.....	Slocum Howland	"
403	Drumheller.....	R. E. Bishop	"
404	Halkirk.....	F. Bergram	"
405	Magrath.....	William H. McIntyre	Semi-Bituminous
406	Lineham.....	The Black Diamond Oil Fields Ltd....	Bituminous
407	Milk River.....	McAdow & Burnham.....	Lignite
408	Coleman.....	A. J. McGuire.....	Bituminous
409	Raymond.....	John H. Wall	Lignite
410	Whitla.....	H. F. Ensign	"
411	Magrath.....	Samuel Pyrah	"
412	Wabamun.....	New Era Coal Co., Ltd.....	"
413	Raymond.....	Joseph Davis Simmons	"
414	Buford.....	Dan Popik	"
415	Parr.....	Charles and Robert Douglas.....	"

MINES OPERATED DURING THE YEAR 1913.—*Continued.*

NO.	ADDRESS	OPERATED BY	CHARACTER OF COAL
416	Okotoks.....	P. Burns Coal Mines Ltd.....	Bituminous
417	Castor.....	Shaw & Carter.....	Lignite
418	Castor.....	M. D. Galbraith.....	"
419	Wabamun.....	The Wabamun Power & Coal Co., Ltd.	"
420	Namoo.....	Clarke & Davis.....	"
421	Altorado.....	Daniel T. Sheets.....	"

MINES ABANDONED DURING 1913.

OPERATED BY	ADDRESS	NO.
Stewart & Campbell.....	Namoo.....	28
Thomas H. Baker.....	Lethbridge.....	56
Thomas Nash.....	Pincher Creek.....	57
West Canadian Collieries Ltd.....	Lille.....	64
Milner & Shoeman.....	Edmonton.....	74
Clarke & Laughlan.....	Namoo.....	75
William Welch.....	Lundbreck.....	77
Royal Collieries Ltd.....	Royal View.....	92
G. H. Knowlton.....	Carstairs.....	103
Diamond Coal Co., Ltd.....	Diamond City.....	104
Three Hills Coal & Development Co., Ltd.....	Three Hills.....	112
Independent Coal Co., Ltd.....	Elcan.....	114
Alberta Consolidated Coal Co., Ltd.	Elcan.....	130
Henderson Brothers.....	Reid Hill.....	134
W. J. Greenaway.....	Reid Hill.....	137
W. J. Bell.....	Bowville.....	143
Pincher Creek Coal Mining Co.....	Pincher Creek.....	145
Beaver Dam Coal Co.....	Nevis.....	168
Bradshaw Mining Co.....	Magrath.....	176
The Stoney Creek Collieries Ltd....	Camrose.....	183
Superior Coal Co., Ltd.....	Taber.....	202
A. A. Lindquist.....	Bow Island.....	205
The Carbon Hill Coal & Coke Co...	Burmis.....	207
The Head Syndicate Ltd.....	Burmis.....	209
Dick & Halbert.....	Three Hills.....	214
Riviere Que Barre Coal Co.....	Riviere Que Barre.....	221
William MacFarlane.....	Pincher Creek.....	222
Adams Coal Mine Co., Ltd.....	Lethbridge.....	223
Bawlf Collieries Ltd.....	Bawlf.....	232
The Drowning Ford Coal Co.....	Medicine Hat.....	236
Moses Simpson.....	Bow Island.....	238
Bish Brothers & Company.....	Hastings Coulee.....	248
Erickson Brothers.....	Milk River.....	259
Paulson, P. A.....	Coleman.....	261
Security Coal Mine Co., Ltd.....	Wabamun.....	263
Charles Strader.....	Halkirk.....	268
C. K. James.....	Halkirk.....	269
Arblaster & Lloyd.....	Bow Island.....	270
Halkirk Collieries.....	Halkirk.....	274
G. H. Knowlton.....	Carstairs.....	281
Big Chief Coal Mining Co., Ltd....	Kimball.....	284
Thomas Davis.....	Keho.....	285

MINES ABANDONED DURING 1913.—*Continued.*

OPERATED BY	ADDRESS	NO.
Square Deal Mercantile Co.....	Big Valley.....	286
James Wagner.....	Gadsby.....	291
John Morris	Pincher Creek.....	292
Coal Securities Ltd.....	Frank.....	293
George Gibson.....	Grassy Lake.....	294
Bullock Coal Mining Co.....	Pincher Creek.....	300
William John Sanderson.....	Long Coulee.....	307
North Alberta Coal Syndicate.....	Pochontas.....	310
James Seale.....	Kimball.....	311
C. K. James.....	Halkirk.....	312
Calgary Collieries Ltd.....	Lignite.....	314
Cardston Coal & Coke Co.....	Cardston.....	316
Rider Brothers.....	Gadsby.....	320
Trochu Coal Co.....	Trochu.....	322
Nichol & Bradshaw.....	Trochu.....	327
A. E. Mitchell.....	Bow Island.....	331
James A. Collins.....	Coalspur.....	339
A. J. McGuire.....	Lethbridge.....	343
John A. Grant.....	Black Diamond.....	359
L. F. Rathburn.....	Long View.....	363
British Collieries Ltd.....	Red Deer.....	365
Joseph Holmes	Grassy Lake.....	366
J. H. Petrie.....	Edmonton South.....	369
John Jacobson.....	Bow Island.....	371
William Hedrich.....	Trochu.....	373
James S. McGuire.....	Trochu.....	385
The Peace River Collieries Ltd.....	Edmonton.....	392
North Kootenay Pass Coal Co.....	Blairmore.....	393
Palmer Coal Co.....	Burmis.....	394
A. J. McGuire.....	Coleman.....	408

MINES RE-OPENED DURING 1913.

OPERATED BY	ADDRESS	NO.
The Great West Coal Co., Ltd.....	Clover Bar.....	99
Geddes, Day & Gibb.....	Little Plume.....	200
H. V. Green.....	Halkirk.....	211
The Georgetown Collieries Ltd.....	Canmore.....	231
C. K. James.....	Halkirk.....	269
G. W. Davison.....	Big Valley.....	287
H. B. Hughson.....	Lucky Strike.....	308

LIST OF CANDIDATES Who Successfully Passed the Examinations Held
During the Year 1913.

NAME	ADDRESS	NO. OF CERT.
Mine Managers		
Black, Ernest D.....	Coalhurst	84
De Hart, Joseph Bertram.....	Coalhurst	86
Duggan, Wm. H.....	Edmonton	85
Mather, Thomas.....	Bickerdike	81
Milne, Morgan C.....	Pocahontas	83
Stevenson, Wm. Jr.....	Pinto, Sask.	87
Pit Bosses		
Blake, Henry.....	Bellevue	128
Brown, William	Commerce	126
Campbell, Kenneth S.	Blairmore	132
Cranston, Michael.....	Pocahontas	119
Crawford, Alex.....	Beaver Mines	125
Dalziel, Robert.....	Clover Bar	122
Digman, John Hynd	Coalhurst	134
Evans, Thos. Rhys.	Coleman	137
Fulton, James Kennedy	Coleman	133
Garrett, John	Blairmore	123
Kaye, Herschel.....	Pocahontas	129
Leblanc, Emile	Taber	127
Mason, Samuel	Blairmore	130
Morgan, Owen	Blairmore	121
Penman, John Smith.....	Rosenroll	120
Queen, Andrew Mitchell	Lethbridge	124
Stephenson, Joseph.....	Commerce	135
Stephenson, Thomas	Bellevue	136
Thomas, Isaac	Coleman	131
Fire Bosses		
Allan, Alex McDiarmid.....	Hosmer, B. C.	247
Baimbridge, James.....	Pocahontas	235
Baird, John	Blairmore	243
Campbell, John	Coleman	...
Embree, Merton Byers.....	Bankhead	239
Hutton, David Telfer.....	Bellevue	241
Jackson, John.....	Bellevue	246
James, William.....	Pocahontas	234
Ludbrook, Ellis Edward.....	Bickerdike	237
Makin, John William.....	Coleman	240
Ottewell, William John.....	Clover Bar	245
Parkes, John Thomas.....	Lethbridge	236
Rae, John	Coleman	242
Saudino, Joe	Bellevue	238
Turner, William	Hillcrest	244
Examiners		
Beal, George F.....	Bellevue	7
D'Aitroy, Arthur Charles.....	Commerce	6
Dennis, Frederick William.....	Lethbridge	3
Grant, Robert H.	Camrose	2
Green, Henry Victor.....	Halkirk	1
Heathcote, Joseph	Edmonton	...
McDonald, Noble Moore.....	Bellevue	5
Rankin, William	Hosmer, B. C.	4

CERTIFICATES Issued by the Government of the North-West Territories
Under the Coal Mines Regulation Ordinance.

NAME	ADDRESS	NO. OF CERT.
Mine Managers		
Addie, W.	Lundbreck	19
Bastian, J.	Taber	43
Bradshaw, G. B.	Nanaimo, B. C.	61
Broome, G. H.	New Zealand	46
Brown, J.	Banff	18
Collins, W. F.	Blairmore	24
Colville, A.	(Deceased)	52
Drinnan, R. G.	Fernie, B. C.	29
Elliott, D.	Blairmore	20
Emmerson, C.	Bellevue	49
Emmerson, J.	Frank	50
Evans, D.	Michel, B. C.	1
Finlayson, J.	Frank	30
Flint, W. G.	Canmore	56
Green, R.	Blairmore	58
Hamilton, William L.	Passburg	4
Hardie, W. D. L.	Lethbridge	2
Hargreaves, James	Taber	9
Henrietta, Charles M.	Bysevilla, Ohio	26
Heathcote, Elijah	Coal Creek, B. C.	23
John, John	Fernie, B. C.	44
Jones, Samuel A.	Lethbridge	57
Kerr, Alexander	Tonkin, B. C.	27
Lewellyn, D. R.	Michel, B. C.	42
Little, John	Coalfields	5
Livingstone, Robert	Lethbridge	16
Manley, Henry Lewis	Fernie, B. C.	41
Mills, Thomas	Nanaimo, B. C.	35
Morris, Cyrus	Frank	12
Morris, James J.	Canmore	3
Morton, T. R.	Michel, B. C.	63
McEvoy, James	Fernie, B. C.	17
McLean, Donald	Ladysmith, B. C.	62
McVicar, Samuel	Frank	59
Parker, John L.	North Star	25
Pearson, R. N.	Frank	38
Pearson, Robinson	Fernie, B. C.	11
Powell, John W.	Coleman	60
Ralsbeck, Luke	Taber	47
Reynolds, E. E.	Lethbridge	33
Richards, J. A.	Edmonton	39
Russell, Thomas	Victoria, B. C.	45
Sharp, Alex	Rossland, B. C.	53
Shepherd, F. H.	Victoria, B. C.	34
Simister, Charles	Fernie, B. C.	21
Smith, Frank B.	Edmonton	7
Strachan, Robert	Fernie, B. C.	31
Stockett, Thomas R., Jr.	Nanaimo, B. C.	10
Stockett, Lewis	Bankhead	51
Symons, C. C.	Coalfields	37
Waite, Archibald	Taber	15
Wall, William Henry	Nanaimo, B. C.	32
White, E. Proctor	Lethbridge	8
Whiteside, O. E. S.	Coleman	6
Williams, W. P.	Blairmore	36

CERTIFICATES Issued by the Government of the North-West Territories
Under the Coal Mines Regulation Ordinance.—*Continued.*

NAME	ADDRESS	NO. OF CERT.
Wilkinson, George	Nanaimo, B. C.	54
Wilson, Arthur R.	Lethbridge	28
Wilson, David G.	Hosmer, B. C.	22
Wright, H. B.	Fernie, B. C.	40
Wyllie, John B.	(Deceased)	13
Pit Bosses		
Bastian, J.	Taber	21
Bastian, T. W.	Bankhead	27
Chestnut, C.	Blairmore	30
Corkill, T.	Michel, B. C.	13
Davies, D.	Coleman	31
Davis, A.	Lethbridge	4
Duggan, R. G.	Taber	19
Emmerson, C.	Bellevue	3
Flint, W. G.	Canmore	16
Fraser, G. L.	Coleman	25
Giffen, H. R.	Coalfields, B. C.	14
Green, R.	Blairmore	17
Hall, Oliver	Bellevue	26
Jones, Samuel A.	Lethbridge	18
Kerr, John	Coalfields, B. C.	33
Livingstone, John C.	Lethbridge	5
Livingstone, Robert	Lethbridge	6
Lowrie, Ralph	Frank	34
Miller, John K.	Bankhead	29
Musgrove, John	Canmore	2
McKean, John W.	Lethbridge	24
McVicar, Samuel	Frank	23
Ostheidt, Gus.	Bankhead	1
Pearson, W. G.	Frank	15
Phillips, Charles	Frank	20
Scott, Hugh	Lethbridge	7
Sequin, Joseph A.	Estevan	22
Steele, Thomas	Coleman	12
Thomas, David	Bankhead	28
Waite, Archibald	Taber	10
Weatherby, Cory	Hillcrest	11
Williams, Thomas H.	Canmore	8
Fire Bosses		
Anderson, J.	Frank	13
Bastian, T. W.	Bankhead	30
Cawthorne, L.	Frank	46
Chestnut, C.	Blairmore	28
Churchill, J.	Frank	45
Cowan, W.	Bankhead	4
Davies, T.	Frank	49
Davies, W. J.	(Deceased)	16
Downs, T.	Canmore	24
Duggan, R. G.	Taber	27
Fairhurst, H.	Lethbridge	39
Gates, H.	Coleman	26
Giffen, H. R.	Coalfields, B. C.	19
Griffiths, E. H.	Canmore	33

CERTIFICATES Issued by the Government of the North-West Territories
Under the Coal Mines Regulation Ordinance.—*Continued.*

NAME	ADDRESS	NO. OF CERT.
Hadfield, John	Canmore	23
Haines, Thomas	Coleman	37
Harrison, Thomas	Bankhead	29
Harvie, Robert	Lethbridge	40
Holmes, G. E.	Fernie, B. C.	15
Hood, Andrew	Frank	20
James, Joseph	Frank	25
Jones, Erskine	Coalfields, B. C.	47
Jones, Evan	Coalfields, B. C.	12
Jones, Samuel A.	Lethbridge	17
Livingstone, John C.	Lethbridge	18
Livingstone, Robert	Lethbridge	7
Mattson, Matt	Frank	34
Musgrove, William	Canmore	9
McCulloch, Alex	Lille	43
McDonald, J. A.	Blairmore	44
McGregor, Alex	Frank	41
McKay, John James	Lethbridge	5
McKinnon, H. G.	Canmore	36
Phillips, Charles	Frank	14
Rice, Awrey	Frank	48
Scott, Hugh	Lethbridge	8
Scott, Robert	Lethbridge	6
Sedlock, Joseph	Canmore	22
Smith, Hugh	Canmore	35
Smith, Robert	Canmore	32
Spencer, W. J.	Bankhead	51
Stott, John	Lethbridge	38
Taylor, William	Lethbridge	10
Thomas, David	Bankhead	31
Turner, Samuel H.	Frank	21
Waite, Archibald	Taber	11
Watkins, John W.	Canmore	3
Watkins, W. Ed.	Canmore	1
Webb, James F.	Canmore	42
Wilson, John	Canmore	2

CERTIFICATES Issued by the Government of the Province of Alberta
Under the Coal Mines Regulation Ordinance.

NAME	ADDRESS	NO. OF CERT.
Mine Managers		
Coulthard, R. W.	Blairmore	8
Fraser, Norman	Michel, B. C.	1
Graham, C.	Nanaimo, B. C.	7
Huntrods, E. S. F.	Taber	3
Little, William F.	Canmore	4
Marsh, John	Taber	6
Reed, Thomas	Northfield, B. C.	5
Robertson, John	Frank	2

CERTIFICATES Issued by the Government of the Province of Alberta
Under the Coal Mines Regulation Ordinance.

NAME	ADDRESS	NO. OF CERT.
Pit Bosses		
McGregor, Alex	Frank	1
Rice, Awrey	Frank	2
Wilson, William George	Coleman	3
Fire Bosses		
Ferguson, C. J.	Canmore	4
Rawson, Thomas Samuel	Frank	1
Salmond, James M.	Bankhead	6
Sparrow, Edwin	Frank	2
Watters, John	Bankhead	5
Wilson, William George	Coleman	3

CERTIFICATES Issued by the Government of the North-West Territories
and by the Government of the Province of Alberta,
Being Duplicate Certificates.

NAME	ADDRESS	NO. OF CERT.
Mine Managers		
Coulthard, R. R.	Blairmore	24
Evans, D.	Michel, B. C.	14
Hargreaves, James	Taber	48
Pit Bosses		
Chestnut, C.	Blairmore	30
Musgrove, John	Canmore	9
Musgrove, William	Canmore	32
Fire Bosses		
Chestnut, C.	Blairmore	28
Downs, T.	Canmore	6
Hadfield, John	Coleman	21
Halliday, George William	Commerce	248
Stott, John	Lethbridge	231
Turner, Samuel H.	Frank	22

CERTIFICATES Issued by the Government of the Province of Alberta
Under The Coal Mines Act.

NAME	ADDRESS	NO. OF CERT.
Mine Managers		
Alderson, Fred Dunn.....	(Deceased.)	52
Allen, Peter	Coleman	72
Aspinwall, Francis	Bellevue.....	22
Ashburner, Edward.....	Lethbridge	40
Barnes, Arthur Winfield	Passburg.....	74
Baxter, Andrew W.	Lethbridge	47
Black, Ernest D.	Coalhurst.....	84
Christianson, Peter	Edmonton.....	48
Church, J. A. H.	Frank	11
Clyne, James	Canmore	69
Crowder, J.	Coleman	38
Cunningham, G. F.	Edmonton	7
Darbyshire, J.	Bellevue.....	35
Davidson, W. A.	Coleman	25
Davis, David	Coleman	62
De Hart, Joseph Bertram.....	Coalhurst	86
Dickson, G. H.	Coleman	3
Duggan, William H.	Edmonton.....	85
Dunn, A. C.	Edmonton.....	18
Ellis, W.	Nanton.....	15
Fraser, G. L.	Coleman	1
Givin, Homer Holt	Royal View	57
Gray, David	Cochrane	65
Guernsey, Forbes William	Bankhead	80
Hamilton, Robert	Lundbreck	4
Harrison, Stephen.....	Lethbridge	16
Hart, John	Edmonton.....	23
Holden, James	Bankhead	14
Horne, Robert	Coleman	12
Horne, Thomas	Coleman	6
Howells, Nathaniel	Bellevue.....	64
Johnson, Moses	Taber	79
Jones, David	Strathcona	67
Kellock, George	Coleman	59
Kinsman, Alexander	Hosmer, B. C.	70
Knox, Thomas K.	Coal Creek, B. C.	28
Lee, Robert John	Elcan	56
Marshall, John William	Clover Bar	78
Mather Thomas	Bickerdike	81
Maxwell, William	Pincher Creek	27
Millar, Andrew A.	Edmonton.....	54
Milne, Morgan C.	Pocahontas	83
Moore, Samuel M.	Bankhead	26
Musgrove, William	Canmore	76
MacAulay, Donald A.	Coleman	42
McCulloch, James	Corbin, B. C.....	41
McDonald, Duncan	Canmore	60
McDonald, John R.	Medicine Hat	29
McLenhan, J. A.	Strathcona	39
McMillan, J. H.	Lethbridge	17
O'Donnell, Thomas	Kipp	61

CERTIFICATES Issued by the Government of the Province of Alberta
Under the Coal Mines Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.
Pickles, William	Cardiff	77
Pitcher, Norman Charles.....	Lethbridge	75
Quigley, James S.	Hillcrest	21
Reid, John Callum	Lethbridge	53
Richards, Clifton C.	Bankhead	36
Roberts, Edward Iver.....	Strathcona	55
Robertson, John	Lundbreck.....	9
Russell, John	Clover Bar.....	44
Saville, Enoch O.	Taber	45
Scott, Andrew N.....	Edmonton	19
Scott, Alex	Strathcona	5
Shanks, John	Coal Creek, B. C.	51
Shaw, William	Canmore	46
Shone, Samuel	(Deceased)	33
Sparrow, Edwin	Lundbreck	13
Stevens, Leonard C.	Coal Creek, B. C.	31
Stevenson, John	Lethbridge	68
Stevenson, Jr., William	Pinto, Sask.	87
Stirling, John T.	Edmonton	8
Stewart, Robert T.	Fernie, B. C.	50
Thain, Harry S.	Lethbridge	34
Thomas, John Ira	Edmonton	49
Thomas, Joseph David	Passburg	66
Thomas, Willis P.	Diamond City	58
Thorne, Benj. L.....	Hosmer, B. C.	32
Wark, S. B.	Passburg	37
Watson, William	Coleman	73
Watters, John	Bankhead	30
Weatherbee, C.	Coleman	2
Willey, Edward	Fernie, B. C.	71
Williams, T. H.	Taber.	10
Pit Bosses		
Allen, Peter	Coleman	72
Anderson, J.	Bellevue	2
Aspinall, Francis	Bellevue	27
Bamling, J.	Diamond City	44
Barclay, Andrew	Frank	111
Blake, Henry	Bellevue	128
Bowie, J.	Frank	4
Brockhouse, Israel Bertram	Milk River	74
Bridge, Edward	Bellevue	99
Brown, Alan James	Pocahontas	105
Brown, William	Commerce	126
Campbell, Kenneth S.	Blairmore	132
Clark, J. C.	Blairmore	49
Clay, E.	Oxville	28
Clemenson, John	Bankhead	58
Clyne, J.	Canmore	53
Cooke, Joseph	Burmis	66
Coupland, George	Lundbreck	77
Cranston, Michael	Pocahontas	119
Crawford, Alexander	Beaver Mines	125

CERTIFICATES Issued by the Government of the Province of Alberta
Under the Coal Mines Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.
Crowder, Harry	Coleman	69
Crowder, J.	Coleman	10
Dalziel, Robert	Clover Bar	122
Davies, J.	Coleman	11
Davies, S.	Coal Creek, B. C.	18
Davies, T.	Frank	54
Davies, Thomas Owen	Pincher Creek	104
Davis, J.	Lethbridge	31
Davidson, David	Blairmore	94
Digman, John Hynd	Coalhurst	134
Dixon, S.	Lille	24
Dunn, J. P.	Strathcona	9
Eccleston, W.	Michel, B. C.	16
Evans, Thomas, Rhys.	Coleman	137
Foster, W. R.	Michel, B. C.	51
Fox, A.	Taber	42
Francis, J.	Taber	29
Fulton, James Kennedy	Coleman	133
Garbett, Richard	Corbin, B. C.	100
Garrett, John	Blairmore	123
Gilliland, William	Strathcona	61
Hallworth, Albert	Bellevue	65
Hamilton, Allan	Pincher Creek	78
Hartley, William	Bankhead	114
Harvie, Robert	Lethbridge	1
Heeley, William Grafton	Bickerdike	80
Hill, James	Lethbridge	84
Horne, Robert	Coleman	12
Horswell, John	Cardiff	34
Howells, Nathaniel	Michel, B. C.	55
Hughes, Daniel John	Diamond City	110
Hunter, Henry	Edmonton	102
Hutton, John	Bellevue	93
Hutchinson, A. M.	Coleman	6
Johnson, Moses	Taber	46
Jones, David	Strathcona	48
Jones, Peter	Lethbridge	92
Jordon, William	Taber	112
Kaye, Herschel	Pocahontas	129
Kellock, George	Coleman	39
Kellock, James	Coleman	82
Keith, John Daniel	Coalhurst	107
Leblanc, Emile	Taber	127
Lee, Robert John	Grassy Lake	56
Letcher, William Martin	Bankhead	96
Luck, George	Bellevue	70
Massey, Harry	Corbin, B. C.	116
Mason, Samuel	Blairmore	130
Mather, Thomas	Bickerdike	106
Miard, Harry E.	Coal Creek, B. C.	64
Moore Thos. E.	Eyremore	47
Morgan, Daniel	Edmonton	17
Morgan, Owen	Blairmore	121
Morris, John	Lundbreck	8
Muir, David	Pincher Creek	108
Munro, William Kennedy	Blairmore	76
Murphy, Peter J.	Clover Bar	91
MacDonald, James A.	Bellevue	79

CERTIFICATES Issued by the Government of the Province of Alberta
Under the Coal Mines Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.
McDonald, Duncan	Canmore	60
McIntyre, John J.	Calgary	88
MacKay, Angus	St. Albert	81
McKay, Donald	Bankhead	3
McKelvie, James	Hosmer, B. C.	43
McLenhan, John A.	Strathcona	33
McMillan, Donald	Pincher Creek	71
Nicol, James	Frank	36
Oliphant, Joseph H.	Bellevue	59
Park, Stewart Gray	Lethbridge	57
Parker, Levi	Bellevue	68
Parry, Thomas	Coleman	109
Parsons, T. Lloyd	Edmonton	26
Penman, John Smith	Rosenroll	120
Pickles, William	Edmonton	35
Picton, Daniel	Passburg	118
Powell, Albert Edward	Strathcona	85
Prentice, John	Lille	45
Queen, Andrew Mitchell	Lethbridge	124
Quigley, Daniel Hugh	Lethbridge	73
Ramsay, Peter Millar	Lethbridge	86
Rankin, George	Michel, B. C.	41
Richards, Samuel	Corbin, B. C.	98
Roberts, D. E.	Coleman	14
Roberts, Ebenezer	Bellevue	87
Roberts, E. I.	Strathcona	52
Schmidt, Otto Prentiss	Camrose	115
Scott, Alexander	Pocahontas	103
Scott, Andrew N.	Edmonton	19
Shanks, David	Coal Creek, B. C.	117
Shaw, Thomas John	Canmore	75
Shaw, William	Canmore	21
Shone, Samuel	(Deceased)	23
Sihvon, William	Bellevue	40
Sloane, Thomas W.	Burmis	67
Sparrow, Edwih	Lundbreck	7
Stephenson, Joseph	Bellevue	135
Stephenson, Thomas	Bellevue	136
Stewart, J. M.	Fernie, B. C.	50
Strickland, Thomas	Clover Bar	101
Taylor, George Warren	Lethbridge	83
Taylor, Tom	Hillcrest	62
Teppo, Herman	Bellevue	15
Thain, Harry S.	Lethbridge	32
Thomas, Isaac	Coleman	131
Thomas, John	Frank	89
Thomas, John	Diamond City	30
Thomas, Joseph D.	Hosmer, B. C.	37
Thompson, Joseph	Coleman	97
Tonge, Thomas	Bickerdike	90
Watkins, W. E.	Lille	20
Watson, William	Coleman	13
Watters, Alexander Grant	Pocahontas	95
Watters, John	Bankhead	22
Welch, James Douglas	Taber	113
Whitelaw, Thomas	Coleman	25
Winter, Archibald	Strathcona	63
Wright, J. S.	Canmore	38

CERTIFICATES Issued by the Government of the Province of Alberta
Under the Coal Mines Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.
Fire Bosses	Fire Bosses	
Adam, William	Hillcrest	108
Alderson, R. D.	Coleman	17
Allan, Alexander McD.	Hosmer, B. C.	247
Allen, William Charles	Coleman	205
Archer, Roland	Hillcrest	132
Archibald, David	Bickerdike	222
Ashurst, W.	Coleman	82
Aspinall, F.	Bellevue	32
Baimbridge, James	Pocahontas	235
Baird, John	Blairmore	243
Bansemmer, R.	Bankhead	14
Barnes, B. J.	Coal Creek, B. C.	92
Barber, J.	Frank	7
Barber, James S.	Hillcrest	144
Berford, Edward	Elcan	196
Besso, A.	Canmore	80
Blake, Henry	Bellevue	133
Blake P.	Lundbreck	23
Blakemore, Roydon Eilers	Edmonton	227
Boulton, W. E.	Bankhead	48
Bovio, Michael	Bellevue	146
Bradley, Thomas	Hillcrest	138
Briscoe, Daniel	Hillcrest	117
Brown, Alan James	Cardiff	163
Brown, T.	Bankhead	24
Brownrigg, J. H.	Frank	35
Brovey, A. C.	Edmonton	64
Burrows, C.	Frank	40
Campbell, Kenneth S.	Edmonton	102
Carson, George	Frank	154
Carson, James	Frank	120
Catchpole, C.	Three Hills	2
Charlton, Samuel	Hillcrest	179
Clark, J. C.	Blairmore	33
Clark, Robert	Lethbridge	212
Clemenson, John	Bankhead	105
Clyne, J.	Canmore	65
Cole, J. J.	Bankhead	66
Cooke, J.	Bankhead	4
Coombs, Walter Percy	Taber	164
Coupland, Edward	Lundbreck	173
Coupland, George	Bellevue	148
Coutts, George	Lethbridge	210
Cox John	Coleman	193
Cranston, Michael	Clover Bar	218
Crawford, George	Frank	160
Crawford, John	Beaver Mines	197
Crockett, Levi A.	Hillcrest	131
Davidson, David	Edmonton	170
Davies Thomas Owen	Coleman	109
Devonshire, G.	Canmore	31
Digman, John H.	Royal View	198
Dixon, S.	Lille	18
Doodson, Robert	Coal Creek, B. C.	177
Draper, Robert	Cochrane	214
Duggan, E. G.	Taber	41
Duncan, Ninian Selkirk	Cochrane	211
Duthie, Alexander Ferris	Pocahontas	184
Eccleston, W.	Michel, B. C.	20
Embree, Merton Byers	Bankhead	239
Evans, D.	Frank	83
Evans, H.	Taber	94
Evans, Hugh	Lethbridge	156

CERTIFICATES Issued by the Government of the Province of Alberta
Under the Coal Mines Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.
Fisher, Samuel	Passburg	169
Fiske G. E.	Edmonton	88
Ford, Allen	Burmis	183
Fowers, C. W.	Canmore	50
Fox, A.	Taber	55
Fraser, J.	Coleman	8
Garbett, Richard	Michel, B. C.	180
Garrett, John	Lille	147
Gatiss, R.	Long Coulee	85
Gillespie, John Maclare	Coleman	111
Gilliland, William	Strathcona	123
Gladwin, J.	Edmonton	97
Gorton, James	Hillcrest	203
Gregory, John B.	Passburg	128
Griffiths, John Thomas	Lille	168
Griffiths, T. J.	Lille	77
Gwilliam, David J. M.	Hillcrest	130
Halliday, George	Champion	155
Hallworth, Albert	Bellevue	52
Hamilton, Charles	Edmonton	36
Hannen, James	Canmore	1
Harries, Henry Cecil	Coleman	209
Hartley, William	Bankhead	110
Harvie, John	Taber	68
Hayes, Robert	Lundbreck	60
Heap, Robert	Lundbreck	206
Henderson, James	Reid Hill	134
Henderson, Samuel	Reid Hill	136
Henderson, W.	Minott	61
Higgins, Alfred	Bankhead	25
Hill, James	Royal View	114
Hilling, James	Coleman	43
Holden, James	Bankhead	13
Hughes, William Robert	Lille	181
Hulme, Charles	Hillcrest	124
Humble, Stephen T.	Bellevue	29
Hunter, Alexander Brunton	Coleman	207
Hutchison, Peter	Frank	202
Hutton, David Telfer	Bellevue	241
Hutton, George	Bellevue	186
Hutton, Isaac	Bellevue	99
Hutton, John	Bellevue	135
Ironmonger, John	Hillcrest	145
Jackson, John	Bellevue	246
James Henry	Coleman	53
James, William	Pocahontas	234
Jones, David	Edmonton	69
Jones, Jack	Cardiff	127
Jones, Peter	Lethbridge	195
Jordon, William	Taber	220
Joyce, Michael	Bickerdike	224
Kaye, Herschel	Maycroft	191
Kemp, David	Beaver Mines	201
Kerr, Robert	Lundbreck	76
Kerr, Robert T.	Passburg	75
Kerr, William R.	Coleman	89
Kirkeberg, Henry S.	Michel, B. C.	87
Laight, Jonas	Medicine Hat	233
Lamont, David	Frank	98
Learmouth, A. J.	Lundbreck	42
Leblanc, Emile	Coleman	153
Letcher, John J.	Hillcrest	149
Littler, John	Bankhead	190
Littler, Mathew	Michel, B. C.	226
Littler, Robert	Michel, B. C.	166
Love, William	Edmonton	86
Loxton, George	Fernie, B. C.	176
Ludbrook, Ellis Edward	Bickerdike	237

CERTIFICATES Issued by the Government of the Province of Alberta
Under the Coal Mines Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.
Machin, J. C.	Strathcona	46
Mackie, John	Corbin, B. C.	221
Makin, John William	Coleman	240
Mason, Samuel	Taber	187
Massey, Harry	Michel, B. C.	172
Mather Thomas	Taber	96
Melling, Peter	Coalthurst	208
Miller, Walter	Bellevue	159
Moore, James H.	Coleman	167
Moore, Thomas E.	Eyremore	56
Morgan Owen	Coleman	143
Morris, David	Edmonton	45
Morrison, Malcolm	Coleman	189
Muir, David	Lundbreck	151
Munro, William K.	Lille	150
Murray, John	Lille	174
McDevitt, James J.	Tofield	129
McDonald, Duncan	Canmore	112
McDonald, Hector	Bankhead	115
McDonald, James A.	Lille	91
McDonald, James Ottis Cove	Coleman	225
McDonald, William C.	Lethbridge	122
McGarry, Martin	Michel, B. C.	59
McGeough, Joseph Patrick	Bellevue	219
McGladrie, John	Lille	152
McKinnon, A. J.	Canmore	62
McLeary, Stewart	Lethbridge	58
McLenhan, John A.	Strathcona	51
McMillan Donald	Coleman	107
McMillan, William D.	Lethbridge	72
McMullin, Joseph	Hillcrest	171
McVey, William	Frank	39
Nanson, Thomas H.	Canmore	15
Nelson, Horatio	Lundbreck	11
Nicol, James	Frank	34
O'Donnell Thomas	Kipp	139
Oliphant, J. H.	Frank	26
Oliphant, John	Bellevue	79
Ottewell, William John	Clover Bar	245
Park Stewart G.	Lethbridge	121
Park, William	Lethbridge	194
Parker, Levi	Bellevue	100
Parkes, John Thomas	Lethbridge	236
Parry, Thomas H.	Hillcrest	119
Patterson, John	Hillcrest	126
Pickering, Gabe	Taber	104
Picton, Daniel	Passburg	178
Picton William	Frank	78
Pounder, George	Pincher Creek	84
Powell, Albert E.	Clover Bar	71
Prentice, John	Lille	67
Queen, Andrew Mitchell	Lethbridge	228
Quigley, Daniel H.	Lethbridge	157
Radford James	Bellevue	200
Rae, John	Coleman	242
Rawlinson, Roland	Burmis	182
Rayner, Frederick	Frank	188
Reid, James	Taber	158
Richards, Evan	Cardiff	162
Richards George	Coleman	137
Richards, Samuel	Corbin, B. C.	175
Richardson, Alfred	Lethbridge	125
Roberts, Ebenezer	Passburg	118
Roberts, John	Nelson, B. C.	140
Roberts, William	Strathcona	95
Robinson, John Herbert	Hillcrest	106
Rose, Walter	Lundbreck	54

CERTIFICATES Issued by the Government of the Province of Alberta
Under the Coal Mines Act.—*Continued.*

...	NAME	ADDRESS	NO. OF CERT.
	Rowbotham, William Henry	Royal View	116
	Saudino, Joe	Bellevue	238
	Schmidt, O. P.	Edmonton	44
	Scott, Andrew N.	Edmonton	28
	Scott Alexander	Pocahontas	185
	Shaw, Eli	Canmore	229
	Shaw, Thomas John	Canmore	113
	Sherratt, Owen Sr.	Coleman	199
	Sihvon, William	Bellevue	27
	Singleton, Robert	Lundbreck	47
	Smith, A. J. P.	Bellevue	103
	Smith, Ralph	Canmore	3
	Smith, Thomas	Hillcrest	216
	Stephenson, Joseph	Commerce	232
	Stephenson Thomas	Bellevue	230
	Stobbs, Joseph	Diamond City	217
	Taylor, Thomas	Lundbreck	30
	Teppo, Herman	Bellevue	19
	Thomas, Isaac	Coleman	204
	Thomas, Joseph D.	Frank	81
	Thomas, John J.	Frank	74
	Thompson, Joseph	Coleman	165
	Thompson, Thomas	Coleman	93
	Thompson, Thomas	Lundbreck	16
	Thomson, Thomas Wilson	Bankhead	161
	Tonge, Thomas	Lundbreck	5
	Tully, Thomas	Fernie, B. C.	215
	Turner, William	Hillcrest	244
	Vola, Serafino	Canmore	63
	Watters, A. G.	Bankhead	49
	Welsh, William	Lundbreck	9
	Weston, Thomas	Strathcona	73
	White, Harry	Frank	90
	Williams, John Jenkyn	Bickerdike	223
	Williams, Walter Edward	Clover Bar	213
	Willmott, William	Canmore	38
	Wright, John S.	Canmore	12
	Wrigley, Walter	Frank	37
	Young, Samuel	Cardiff	101
	Young, Thomas	Taber	57
	Examiners		
	Beal, George F.	Bellevue	7
	D'Altroy, Arthur Charles	Commerce	6
	Dennis, Frederick William	Lethbridge	3
	Grant, Robert H.	Canmore	2
	Green, Henry Victor	Halkirk	1
	McDonald Noble Moore	Bellevue	5
	Rankin, William	Tosmer, B. C.	4

CROW'S NEST PASS DISTRICT.

ANDREW N. SCOTT, DISTRICT INSPECTOR OF MINES, LETHBRIDGE.

Hillcrest Collieries, Limited

Authorized Capital: \$3,000,000.00.
 President: C. B. Gordon.
 Vice-President: Charles Meredith.
 Directors: C. B. Gordon, Charles Meredith, J. M. Mackie, M. P. Davis,
 C. P. Hill, J. S. C. Fraser, C. R. Hamilton and John Brown.
 Secretary-Treasurer: Frank J. Smith.
 Managing Director: J. M. Mackie.
 General Manager: John Brown.
 Mine Manager: J. Quigley.
 Overman: Thomas Taylor.
 Examiners: Sam Charlton, Dan Briscoe, John Ironmonger, William
 Adlam and Walter Rose.
 Engineer: William Hutchison.
 Master Mechanic: Theodore Finch.
 Head Office: Montreal, Quebec.
 Mine Office: Hillcrest, Alberta.

During the past year a considerable amount of development work has been done at this mine and the output considerably increased. The No. 2 Slope has been sunk a distance of 1,000 feet and gangways opened away from it. Shot-firing has been greatly reduced, the gangways being the only places in which shot-firing is allowed to be done.

A D.C. generator, 312 K.W. direct connected to a 500 h.p. Robb-Armstrong engine has been installed. A Christie box car loader has been erected and one 11 ton Dinky locomotive put into operation for transportation purposes between the tippie and the mine entrance. A telephone system has also been installed connecting the underground workings of both Nos. 1 and 2 slopes with the engine room. The siding accommodation has also been extended.

The Canadian Coal Consolidated, Limited.

This company went into liquidation in the early part of the year and the plant has been operated on a small scale by the Trusts & Guarantee Company, Limited, of Calgary, for the purpose of keeping the mine in condition and for supplying light to the town of Frank.

Marlow Brothers.

This mine which is leased from the Galbraith Coal Co. is situated near Lundbreck and has only been operated on a small scale. Robert Hays who holds a provisional certificate is acting as Overman.

*West Canadian Collieries, Limited.**Bellevue Mine.*

Authorized Capital: \$5,600,000.00.
 President: A. Wicart.
 Vice-President: Ed. Ory.
 Directors: Edward Decoster, E. Ory, E. Carlier, Baron R. de la Grange,
 O'Tard J. Cavois, J. R. Tennant, E. Rason and H. Maitland Kersey.

Secretary: A. Ghesquier.

General Manager: J. Charbonnier.

Mine Manager: J. R. McDonald.

Overmen: No. 1 Mine—Edward Bridge; No. 2 Mine—W. G. Pearson.

Examiners: No. 1 Mine—A. Hallworth, I. Hutton, H. Smith, J. Radford, J. Jackson, N. McDonald, H. S. McDonald and D. Hutton; No. 2 Mine—E. Coupland, J. McGeough, J. Roberts, D. McMillan, J. Stephenson, E. Roberts, A. Hamilton, T. Stephenson, D. Picton and W. Millar.

Engineers: M. Piard and E. Gallon.

Master Mechanic: R. Niven.

Head Office: 119 London Wall, London, E.C., England.

Mine Office: Bellevue.

During the past year the following machinery has been installed:—One Canadian Rand high pressure four stage air compressor with a capacity of 706 cubic feet of free air per minute; two 150 h.p. Watrous Boilers; one Sullivan fan 8 feet by 5 feet, steel encased, double inlet, reversible, with a capacity of 140,000 cubic feet of air per minute against a 4 inch water gauge running at 250 revolutions per minute, belt driven by a 150 h.p. induction motor with a voltage of 2,300 volts; two ten-ton Porter compressed air locomotives for haulage purposes in the mine and a high pressure line from No. 61 tunnel to No. 2 mine.

The following buildings have been erected: Wash-house 33 feet by 108 feet frame building with concrete floor with an official's room and a room for First Aid work. This building will have 370 steel lockers and 24 sprays. A separate heating plant has been erected in a concrete building to supply power for heating the water and wash-house. A thaw house for explosives, frame structure 12 feet by 16 feet, heated with hot water from a heating system installed in a separate fireproof building.

Development work. Four new gangways have been started, known as Nos. 1, 2, 3 and 4 levels, No. 4 level being approximately 2,200 feet above the main gangway in No. 1 mine. These levels will ultimately be all connected underground. The entrance to the top level which is being driven south is two miles from Lille mine. Another rock tunnel 114 feet in length has been driven from No. 1 to No. 2 seam on the outside section of the main gangway forming a pass-by for haulage purposes.

A rock tunnel 74 feet in length has been driven from the gangway in No. 3 seam, No. 1 mine just striking the bottom of the syncline in No. 1 seam. Gangways have been started north and south and workings will be opened on the east leaf, all of which will be eventually connected to the gangway in No. 2 mine. Three rock raises have been driven from the gangway in No. 2 seam to No. 1 seam and chutes driven up the pitch to No. 2 mine, these being the first connections made between the two mines. On the inside section of No. 1 mine another connection has been made with No. 2 mine at chute No. 133.

A considerable amount of work has been done in connection with the old workings in No. 1 mine. An opening was made to the surface from chute No. 58; a raise has been driven in No. 1 seam from No. 61 tunnel on the west leaf of the syncline to the old workings at the top of the anticline. From this point an airway has been driven in solid coal across the top of the old workings to chute No. 133; every place

in this section has been connected in this airway. The whole of the old workings are being sealed off with substantial stoppings.

The fan situated on the surface at chute No. 81 will be used exclusively for ventilating the old workings.

Blairmore Mine.

Mine Manager: W. P. Williams.
Overman: D. Davidson.
Examiners: William McVey, J. Garrett, K. S. Campbell, O. Morgan and S. Mason.
Engineer: A. Williams.
Master Mechanic: E. Large.
Mine Office: Blairmore, Alberta.

During the past year a Jeffrey double inlet fan 4 feet by 2 feet 6 inches has been installed having a capacity of 50,000 cubic feet of air per minute, against a 2 inch water gauge at 360 revolutions per minute belt driven from a 50 h.p. motor. All shotfiring in coal has been stopped in this mine except in gangways.

Greenhill Mine.

Mine Manager: W. P. Williams.
Examiner: D. Kemp.
Engineer: A. Williams.
Mine Office: Blairmore, Alberta.

During the past year this company have opened a new mine south of Blairmore and on the same seams as the Blairmore mines. Three gangways have each been driven 600 feet on the No. 2 seam. No railway facilities have yet been provided.

The International Coal and Coke Company, Limited.

Authorized Capital: \$3,000,000.00.
President: William Farwell.
Vice-President: Hugh Davidson.
Directors: Wm. Farwell, H. Davidson, R. W. Riddell, W. G. Graves, B. H. Kizer and Frank H. Graves.
Secretary: W. G. Graves.
Treasurer: John McKeagan.
Managing Director: R. W. Riddell.
General Manager: O. E. S. Whiteside.
Mine Manager: W. A. Davidson.
Overmen: D. Davies, William Watson, E. D. Black.
Examiners: J. Thompson, Mal. Morrison, W. Allen, J. Cox, Thos. R. Evans, J. B. de Hart, Henry James.
Engineer—D. A. Macaulay.
Master Mechanic: James Scott.
Head Office: Spokane, Wash., U.S.A.
Mine Office: Coleman, Alberta.

A machine shop constructed of concrete in the form of an "L" has been built 87 feet by 32 feet and 35 feet by 32 feet, the roof having steel trusses covered with shiplap and corrugated galvanized iron. Equipment consists of one 20 h.p. Westinghouse motor for driving the main shafting; one bolt-machine; one planing machine; one saw bench and one crosscut swing saw. Locomotive shed with concrete walls

and steel roof trusses covered with shiplap and corrugated iron has also been built; the shed has four tracks and will accommodate twelve ten-ton compressed air locomotives.

A pipe line 450 feet in length and 20 inches in diameter has been laid from the river to the Power House to supply water to the condensers. An extension built of stone and brick 55 feet by 30 feet has been added to the Power House and will accommodate a 750 K.W. A.C. generator driven by a mixed pressure turbine, also a rotary converter and switchboard.

A storage floor for coal has been arranged so that 3,000 tons of coal can be dumped from the tippie and be reloaded without entailing much labor. For this purpose a tunnel 130 feet in length has been constructed below the storage floor, with chutes every ten feet on each side. A small tippie and reloading bin has been built so that cars can be run from the tunnel and dumped into the bin.

At York Creek, a brick lamp-house 14 feet by 10 feet has been erected. A pulmotor and oxygen cylinders are kept in case of emergency.

The slope on No. 4 seam has been driven a distance of 700 feet and the cross measure tunnel a distance of 150 feet from the bottom to No. 2 seam and a Worthington duplex pump 14 inches by 7 inches by 10 inches has been installed.

A cross measure tunnel has been driven 75 feet from the top of the slope to No. 5 seam and an incline driven 500 feet to the outcrop. This is to provide a ropeway for an electric hoisting engine which is to be installed on the surface.

The Leitch Collieries, Limited.

Authorized Capital: \$1,000,000.00.

President: Malcolm Leitch.

Vice-President: G. O. Aulesbrook.

Directors: F. C. Baker, J. C. Drewry, A. W. Fraser, A. K. Leitch, J. D.

McBride, W. A. McLeod, W. G. McMahon, D. E. Williams, J. G.

Turriff and R. G. Plews.

Secretary-Treasurer: J. B. Smith.

General Manager: Wm. L. Hamilton.

Mine Manager: J. D. Thomas.

Examiners: N. Howells, H. Blake, F. C. White and Geo. Richards.

Master Mechanic: Walter Holmes.

Head Office: 274 Main Street, Winnipeg, Man.

Mine Office: Passburg, Alberta.

During the past year the following improvements have been made:—
A Crawford and McCrimmon fan 20 feet by 6 feet with a capacity of 200,000 cubic feet of air per minute against a 1½ inch water gauge has been installed. The fan which is driven by a steam engine is enclosed in a fire-proof building and connected to the mine by means of a drift built of concrete. A 63-ton locomotive for shunting purposes has also been installed. A wash-house 30 feet by 75 feet has been erected, frame structure with concrete floor with a capacity of 250 steel lockers and a suitable number of sprays.

A rock tunnel has been driven from No. 2 seam to No. 1 seam, a distance of 65 feet and a rock tunnel from No. 2 seam to Nos. 3 and 4 seams has been driven a distance of 70 feet.

Maple Leaf Coal Company.

Authorized Capital: \$500,000.00.
 President: D. M. Drumheller.
 Vice-President: A. Kuhn.
 Directors: James Finlay, A. Coolidge, M. Oppenheimer and C. P. Lund.
 Secretary-Treasurer: Charles P. Lund.
 General Manager: James Finlay.
 Mine Manager: James McCulloch.
 Examiners: John McGladerie and Thomas Tulley.
 Engineer: Thomas Walker, Wm. Burroughs and John Green.
 Master Mechanic: John Stobbs.
 Head Office: Spokane, Wash., U.S.A.
 Mine Office: Maple Leaf, Bellevue, Alberta.

The slope at this mine has been sunk another 400 feet and gangways turned off it. A Cameron pump with a capacity of 110 gallons per minute has been installed in the slope; a 150 h.p. Jenckes boiler and a Canadian Rand low pressure air compressor have been added to the surface equipment.

A concrete wash-house 42 feet by 21 feet has been erected and will be fitted with steel lockers and shower baths.

Preparations are being made to operate a seam of coal near the railway. This seam has been proved by a rock tunnel and a gangway driven on the strike, a distance of 400 feet in an easterly direction.

Davenport Coal Company.

Authorized Capital: \$500,000.00.
 Vice-President: W. Clayton Miller.
 Directors: W. Clayton Miller, John A. Finch, Charles Hussey, Charles P. Lund and William A. Corey.
 Secretary-Treasurer: Charles Hussey.
 General Manager: J. Dougall.
 Mine Manager: A. W. Barnes.
 Overman: T. Sloan.
 Examiners: G. Coupland and J. Rae.
 Master Mechanic: S. McDonald.
 Head Office: 507 Empire State Building, Spokane, Wash, U.S.A.
 Mine Office: Burmis, Alta.

No additions have been made to the plant during the past year, the only development of importance being a rock tunnel which was driven from No. 2 seam to No. 5 seam.

*Canadian Coal and Coke Company, Limited.**Western Colliery, Beaver Mines.*

Authorized Capital: Stock Preferred, \$4,000,000.00; Ordinary, \$11,000,000.00.
 President: H. A. Lovett, K.C.
 Vice-President: E. B. Greenshields.
 Directors: Hon. Robert Mackay, J. S. Hough, K.C., J. W. McConnell, Hon. Nathaniel Curry, J. T. Ross, R. Brutinel, A. H. Cook, K.C., Hon. W. B. Ross and J. M. Robinson.
 Secretary-Treasurer: Samuel T. Mains.
 Chief Engineer: Charles Fergie.
 General Superintendent: William Maxwell.
 Mine Manager: Samuel McVicar.
 Overman: D. Muir.

Examiners: T. O. Davis, J. Crawford and G. Prentice.
Engineer: G. A. Lavoie.
Master Mechanic: R. Brown.
Head Office: Montreal, Quebec.
Mine Office: Beaver Mines, Alberta.

During the past year no improvements of any importance have been made at this mine with the exception of a locomotive and standard passenger coach which have been added to the equipment of the branch railway.

McGillivray Creek Coal and Coke Company, Limited.

Authorized Capital: \$3,000,000.00.
President: Lorne A. Campbell.
Vice-President: James A. Nowell.
Directors: L. A. Campbell, J. A. Nowell, Fitzhugh Burns, W. E. Cullen, Jr., and T. M. Paine.
Secretary-Treasurer: W. E. Cullen, Jr.
Managing Director: Lorne A. Campbell.
Assistant to the President: R. S. McKibben.
Mine Manager: George Kellock.
Overman: Peter Allen.
Examiners: Thomas Parry, A. B. Hunter, M. Gate and H. C. Harries.
Engineer: A. G. Macaulay.
Master Mechanic: Herdman McLeod.
Head Office: Rossland, B. C.
Registry Office: Spokane, Wash., U.S.A.
Mine Office: Coleman, Alberta.

A Willey generator, 250 volts, 400 amps D.C. belt driven by a 160 h.p. engine has been installed. A hoisting engine driven by a 35 h.p. motor with friction gear has been erected adjoining the railroad tracks, to be used for handling the railway cars at the tippie and a 65 h.p. Robb-Brady boiler has been added to the power plant at the mine.

The wash-house has been extended and equipped with 200 steel lockers and a suitable number of sprays.

A fire-proof lamp house has been erected, built of stone with concrete floor and equipped with the necessary appliances for cleaning and repairing and with a rack capacity for 500 lamps.

A Sirocco fan with 200,000 cubic feet of air per minute capacity against a $2\frac{1}{2}$ inch water gauge, direct connected to a 75 h.p. motor is in the course of erection.

A telephone system has been installed connecting the underground workings and the plant, the cables are all in lead sheathing and have a total length of 4,000 feet. The electric lighting system has been extended into the mine 2,000 feet, all wires being in conduits.

Thirty steel mine cars with a capacity of $4\frac{1}{4}$ tons and equipped with automatic couplings and brakes and 100 Wolf safety lamps have been added during the past year.

A water system for the town has been installed and for this purpose a dam has been built across the McGillivray Creek, and two triplex pumps, motor driven, installed. Capacity of pumps 140 gallons per minute against a head of 200 feet.

Some prospecting work has been done on the property situated on Township 8, Range 5, West of the 5th Meridian and seven seams of bituminous coal have been proved averaging from 9 to 20 feet in thickness and pitching from 35 to 40 degrees.

No further development or prospecting work has been done on the various coal properties situated on the South fork of the Old Man River and it is not likely that anything further will be done in this district until railway facilities are obtained.

In the Pincher Creek district a number of mines have been operated throughout the year to supply the local demand. The coal seams at these mines vary in thickness from 4 to 25 feet and are pitching at an inclination of 45 degrees.

LETHBRIDGE DISTRICT.

SAMUEL A. JONES, DISTRICT INSPECTOR OF MINES, LETHBRIDGE.

Canadian Pacific Railway, Department of Natural Resources.

President: Sir Thomas G. Shaughnessy.

Vice-President: David McNicoll.

Directors: Richard B. Angus, Adam Creelman, K.C., Hon. James Duns-
muir, Sir Sanford Fleming, Herbert S. Holt, Charles R. Hosmer, Hon.
Robert McKay, Wilmott D. Matthews, David McNicoll, Sir Edmond
B. Osler, M.P., Sir Thomas G. Shaughnessy, Sir Thomas Skinner,
Bart., Rt. Hon. Lord Strathcona, G.C.M.G., Sir William C. Van Horne,
G.C.M.G., and Sir William Whyte.

Secretary: W. R. Baker.

Treasurer: H. Suckling.

Manager: P. L. Naismith.

General Superintendent: Lewis Stockett.

Mine Manager: Robert Livingstone.

Head Office: Calgary, Alberta.

Mine Office: Lethbridge, Alberta.

Number 3 Mine.

Overmen: A. M. Queen and J. C. Livingstone.

Examiners: R. Scott, W. D. McMillan, J. T. Parkes and T. Whitelaw.

Engineer: W. Kellett.

Master Mechanic: John Scott.

Number 6 Mine.

Overmen: John Stevenson and J. C. Livingstone.

Examiners: G. W. Taylor, P. Ramsay, W. Park, Jr., Jos. Miller, G.
Courtts, R. Clarke R. Draper and J. Moore.

Engineer: W. Kellett.

Master Mechanic: H. A. McMillan.

During the year a hoisting engine has been installed for operating the cages in the No. 5 shaft which acts as an emergency shaft and is also used as the downcast. A lamp house 27 feet by 35 feet has also been built of brick and is equipped with apparatus for charging the electric safety lamps which are being introduced into this mine.

A timber hoist has also been installed and a powder magazine built. One hundred and twenty lockers and eight shower baths have been

added to the wash-house and 100 new mine cars have been put into operation.

The underground haulage which is operated by means of endless rope has been extended 4,000 feet on the west side of the shaft thereby bringing the total length of rope at this mine up to 20,000 feet. Arrangements have also been made underground for the accommodation of 400 sets of miners' tools.

At No. 3 shaft a pump, driven by a 40 h.p. electric motor has been added to the equipment; this pump is used for lifting the water out of the mine, the power for driving it being obtained from the No. 6 shaft.

The mine formerly operated by George F. Russell near Lethbridge, is now being operated by John Rollingson on a small scale. There are two seams being operated at this mine, the top seam being 3 feet in thickness and the bottom seam 4 feet in thickness with 7 feet of rock in between.

Diamond Coal Company, Limited.

Authorized Capital: \$1,500,000.00.
President: Hon. G. H. V. Bulyea.
Vice-President: Dr. C. W. Clarke.
Directors: Hon. G. H. V. Bulyea, Dr. C. W. Clarke, L. V. Kerr, George F. Stephens, H. A. Maclean, Thos. Robertson and Thomas Underwood.
Secretary-Treasurer: Thomas Underwood.
Managing Director: Thomas Underwood.
Overman: John Bamling.
Master Mechanic: James Graves.
Head Office: 1315 First Street West, Calgary, Alberta.
Mine Office: Diamond City, Alberta.

During the year a new entry has been started at a point 2,200 feet north of the present mine entry. It is intended to drive this entry to connect with the present workings and obtain an increased output. Haulage from this entry is done by means of an electric locomotive on the overhead trolley wire system which hauls the cars to the foot of the incline.

The mine operated by James Ashcroft on the west side of the Belly River near Lethbridge has no railway connections and is only operated on a small scale. No improvements of any importance have been done at this mine during the year.

The White Ash Collieries, Limited.

This mine is situated one mile north of Taber and is opened up by means of two shafts 100 feet deep which have been sunk to the coal which is 4 feet 2 inches in thickness. The mine is opened out on the double entry system, the coal being undercut by means of compressed air punchers.

The Canada West Coal Company, Limited.

Authorized Capital: \$2,300,000.00.
President: O. A. Robertson.
Vice-President: S. H. Bowman.
Directors: P. M. Starnes, F. E. Kenaston, E. C. Warner, S. H. Bowman
and O. A. Robertson.
Secretary: J. R. Howard.
Treasurer: F. E. Kenaston.
General Manager: J. R. Howard.
Mine Manager: Moses Johnson.
Examiners: Wm. Jordon, Thos. Young, Hopkin Evans, J. W. Byers and
A. Pitt.
Engineers: Joseph McIntyre, Norman Sowerby.
Master Mechanic: William McMahon.
Head Office: Taber, Alberta.
Mine Office: Taber, Alta.

This mine is situated one mile west of the town of Taber and has a tippie capacity of 2,000 tons per day. The coal is hauled from the mine by means of a slope operated by an endless chain haul.

During the year, one generator A.C. 125 K.W. and also a motor generator set were installed for the purpose of supplying electric light to the town of Taber. Two slopes have been driven at an angle of 30 degrees from the workings to the surface for the purpose of assisting the ventilation.

The Domestic Coal Company.

No improvements of any importance have been made at this mine during the year and as it only supplies local demand it is operated on a small scale. Rooms and entries have been driven to the boundary and pillars are being extracted on the retreating method.

The Alberta Consolidated Coal Company, Limited.

This mine is situated near Elcan and is connected to the main line of the Canadian Pacific Railway by means of a spur. The coal seam which is 3 feet in thickness is opened up on the double entry system.

Elcan Coal Company.

This mine is situated near Elcan and is operating a coal seam 3 feet in thickness. As there are no railway connections, it is only operated on a small scale.

Canadian Pacific Railway Company.

This mine is situated three miles north of Taber the coal being mined for the purpose only of supplying fuel for the pumping plant at this point. No improvements have been made during the year.

Magrath Coal Company, Limited.

Authorized Capital: \$50,000.00.
 President: Alva A. Merkley.
 Vice-President: Levi Harker.
 Directors: Alva A. Merkley, Levi Harker, A. Mercer, John L. Gibb and David P. Woodruff.
 Secretary: A. Mercer.
 Treasurer: John L. Gibb.
 Managing Director: David P. Woodruff.
 General Manager: David P. Woodruff.
 Overman: William Jaynes.
 Head Office: Magrath, Alberta.

This mine which is situated about six miles north of Magrath only supplies local demand and has no railway connections.

Rock Springs Coal and Brick Company, Limited.

Authorized Capital: \$50,000.00.
 President: B. N. Bullock.
 Directors: B. N. Bullock, A. L. Bullock, W. Henderson and C. C. Cook.
 Secretary-Treasurer: C. C. Cook.
 Managing Director: W. M. Henderson.
 Mine Manager: Robert John Lee.
 Engineer: Herbert Lamb.
 Head Office: Taber, Alberta.
 Mine Office: Elcan, Alberta.

This mine is situated near Elcan and is connected to the main line of the Canadian Pacific Railway by means of a spur track. The seam of coal which is 3 feet 6 inches thick is being operated on the room and pillar method and is undercut by compressed air punching machines. During the year the tipple has been reconstructed and a snow shed built for a distance of about 60 feet.

*Canadian Coal and Coke Company, Limited.**Lethbridge Colliery.*

Authorized Capital: Stock Preferred, \$4,000,000; Ordinary, \$11,000,000.
 President: H. A. Lovett, K.C.
 Vice-President: E. B. Greenshields.
 Directors: Hon. Robert Mackay, J. S. Hough, K.C., J. W. McConnell, Hon. Nathaniel Curry, J. T. Ross, R. Brutinel, A. H. Cook, K.C., Hon. W. B. Ross and J. M. Robinson.
 Secretary-Treasurer: Samuel T. Mains.
 Chief Engineer: Charles Fergie.
 General Superintendent: William Maxwell.
 Mine Manager: Thos. O'Donnell.
 Overman: J. D. Keith.
 Examiners: Eli Shaw, P. Hutchinson, William McDonald, R. Heap, H. Evans, D. H. Quigley, J. Hill, I. Whitefield and J. Stubbs.
 Engineer: O. L. Puckett.
 Master Mechanic: M. Richardson.
 Head Office: Montreal, Que.
 Mine Office: Coalhurst, Alta.

This mine is situated on the west side of the Belly River at Coalhurst and is connected to the main line of the Canadian Pacific Railway by a spur track. The coal seam is 4 feet 6 inches in thickness. An attempt has been made to operate this coal by a long wall retreating method but with unsatisfactory results.

Safety lamps of the Wolf type are used throughout the mine and all shots are fired by certified shot-lighters. A complete fire protection system has been established throughout. The coal is undercut by means of punching machines of the Ingersoll type.

The mine operated by Joseph Oborn is situated four miles south of Milk River and is operating a seam of lignite coal for local use. No improvements have been made during the year.

The mine operated by J. J. Mills is situated 5 miles south of Grassy Lake and is operating a seam of coal 3 feet 6 inches in thickness with a cover of 30 feet. A new tippie has been erected at this mine during the past year and another opening made for the purpose of ventilation.

Consolidated Monarch Collieries, Limited.

Authorized Capital: \$500,000.00.

President: Johnson Gibbins.

Vice-President: Ralph Smith.

Directors: W. H. Lang, M.D., R. J. Potts, George Stewart and D. E. Adams.

Secretary-Treasurer: J. W. Laing.

Mine Manager: John Howells.

Engineer: William Hipp.

Head Office: Vancouver, B.C.

Mine Office: Taber, Alberta.

No improvements of importance have been made at this mine during the past year but arrangements have been completed for installing a modern plant which will be capable of handling an output of 500 tons per day.

The mine operated by David H. Long is situated 6 miles north of Bow Island where a seam of coal 2 feet 10 inches in thickness is being mined. The mine is operated on a small scale, the coal being used to supply local trade only.

The mine operated by the City of Lethbridge is opened by means of a drift on the banks of the Belly River near Lethbridge, the output being used exclusively to supply fuel for the Lethbridge Power Plant.

The Golden West Coal Mining Company are operating a seam of coal 4 feet in thickness near Taber, the output of the mine being used to supply local demand only.

The mine operated by the New Barnes Coal Mining Company is situated 6 miles north of Lethbridge and is opened up on the double entry system. The coal is 4 feet 6 inches in thickness and is of good quality.

The mine operated by the Sunlight Coal Company is situated about 2½ miles south of Grassy Lake and is entered by means of a slope.

An attempt has been made to work the coal in this mine on the long wall method but failed. The output is sold entirely locally.

The White Ash Collieries, Limited.

Authorized Capital: \$25,000.00.
President: W. E. Bullock.
Vice-President: Roy Bullock.
Directors: W. E. Bullock, Roy Bullock and Clara Bullock.
Treasurer: W. E. Bullock.
Managing Director: W. E. Bullock.
General Manager: W. E. Bullock.
Mine Manager: John Marsh.
Engineer: Walter Doncombe.
Head Office: Taber, Alberta.
Mine Office: Taber, Alberta.

This mine is situated 4 miles north-east of Taber and has no railway connections. The seam of coal which is 4 feet in thickness is worked on the double entry system. There have been no improvements of any importance at this mine.

Chinook Coal Company, Limited.

Authorized Capital: \$3,000,000.00.
President: W. A. Wood.
Vice-President: Miller Lash.
Directors: W. A. Wood, Miller Lash, Cyrus Birge, Robert Cassells, H. A. McCallum, L. G. DeWeber, Christopher Cook and C. R. Somerville.
Secretary-Treasurer: W. A. Davidson.
General Manager: John C. Reid.
Mine Manager: John C. Reid.
Overman: Peter Jones.
Examiners: J. Murray and George Halliday.
Engineer: C. C. Richards.
Master Mechanic: David Ewing.
Head Office: Lethbridge, Alta.
Mine Office: Commerce, Alta.

This mine is situated 10 miles north of the City of Lethbridge on the west side of the Belly River and is connected to the main line of the Canadian Pacific Railway by means of a spur 10 miles in length.

The ventilation is produced by means of a 8½ foot Sullivan fan and in addition to this, several fans are installed underground.

A haulage engine driven by compressed air has been installed underground for the purpose of operating a tail rope haulage. No other improvements of any importance have been made during the year.

The mine operated by George Heighes near Iron Springs is situated about 25 miles north of Lethbridge and is operated on a small scale. The thickness of the seam is 3 feet.

The mine operated by C. E. Hollander is situated two miles south of Milk River, the output being governed entirely by local demand.

The mine is operated on a small scale and no improvements of any importance have been made during the year.

The mine operated by the Superior Coal Company, Limited, is situated on the north side of the Belly River about four miles from Taber. The seam of coal which is 4 feet in thickness is undercut by means of compressed air machines of the puncher type. During the year an air shaft has been sunk to the seam and a powder magazine built.

The mine operated by John S. Hutchison is situated 12 miles south of Bow Island. The seam of coal which is 26 inches in thickness is being worked on the room and pillar system and the mine is ventilated by means of a small furnace. The output of the mine is used to supply local demand.

The mine operated by the Diamond Sunrise Coal Company is only operated on a small scale, most of the output being hauled to Diamond City where a portion of it is placed on the railway cars.

The mine operated by Duncan Kippen which is situated near Massinassin is worked on a small scale, the coal being used only to supply local demand. The coal is worked by stripping the surface.

The mine operated by H. B. Hughson is situated near Lucky Strike and is only operated on a small scale, the output being used to supply local demand.

The mine operated by Daniel G. McKay is situated four miles east of Milk River and is worked on a small scale.

The mine operated by Arthur Morgan is situated 12 miles south of Bow Island. Two shafts have been sunk to the coal which is 26 inches in thickness.

The mine operated by Julius Lavenne is situated 11 miles north of Bow Island and a seam of coal four feet in thickness is operated on the room and pillar system.

The mine operated by Ferdinand Freidenberg is situated 25 miles south of Seven Persons and is operated only in the winter months for the purpose of supplying fuel to the settlers in the district.

The mine operated by J. C. Foote is situated 20 miles south of Seven Persons and a seam of lignite coal 3 feet in thickness is being operated.

The mine operated by E. Raber is situated a short distance north of Bow Island and a seam of coal 5 feet in thickness is being operated on the room and pillar system.

The mine operated by C. F. Henry is situated 20 miles south of Bow Island and a seam of lignite coal 4 feet in thickness is being worked.

The mine operated by William Roberts is located 25 miles south of Grassy Lake where a seam of coal 30 inches in thickness is being operated.

The mine operated by W. H. Simanton is situated 12 miles north of Bow Island, the coal being hauled from the mouth of the drift to the tippie by means of a 25 h.p. gasoline engine, the output being used entirely to supply local demand.

The mine operated by Stephen Schmidt is situated 25 miles south of Seven Persons where a seam of lignite coal 3 feet in thickness is being operated on a small scale.

The mine operated by the Morning Star Coal Company is situated six miles south of Grassy Lake and is operated on a small scale. The seam is 3 feet 6 inches in thickness with a band of clay 12 inches thick in the centre.

The mine operated by W. H. McIntyre is situated 18 miles south of Magrath where a seam of coal of a semi-bituminous nature is being worked.

The mine operated by R. A. Salisbury is situated 11 miles north of Bow Island the seam of coal being 4 feet in thickness. Very little work has been done at this mine during the past year.

The mine operated by the Block Coal Collieries is situated 4½ miles north-east of Taber where a seam of coal which is 4 feet in thickness is being operated by the long wall system. The coal is undercut by means of a Hurd long-wall machine, electrically driven. Operations have been commenced at this mine within the last few months and it is expected that it will be a fairly large producer in the near future.

CALGARY DISTRICT.

FRANCIS ASPINALL, DISTRICT INSPECTOR OF MINES, CALGARY.

The Canmore Coal Company, Limited.

Authorized Capital: \$50,000.00.

President: James B. Neale.

Vice-President: Frederick E. Weyerhaeuser.

Directors: James B. Neale, S. Brinckerhoff Thorne, Orin H. Ingram,
 Frederick E. Weyerhaeuser, Joseph G. Thorpe.
 Secretary: Edmund M. Parker.
 Treasurer: S. Brinckerhoff Thorne.
 General Manager: James J. Morris.
 Mine Manager: William Musgrove.
 Overmen: No. 1 Mine—James Clyne; No. 2 Mine—J. S. Wright.
 Examiners: No. 1 Mine—C. W. Fowers, H. G. McKinnon, G. W. Luck,
 W. R. Kerr and J. Letcher; No. 2 Mine—Sere Vola, A. Besso, M.
 Bovio, R. Keer and Joe Saudino.
 Engineers: W. G. Flint and Thomas B. Williams.
 Master Mechanic: H. W. Evans.
 Head Office: Canmore, Alta.
 Mine Office: Canmore, Alta.

During the past year the following plant has been installed:—One straight-way air compressor; two boilers 72 inches by 18 feet of the Leonard type; one Canadian Fairbanks-Morse pump 7' by 5' by 7'. The power house and boiler house have been extended and several houses built for employees. A considerable amount of prospecting work has also been done on the property of this company.

Canadian Pacific Railway, Department of Natural Resources.

Bankhead Mines.

President: Sir Thomas G. Shaughnessy.
 Vice-President: David McNicoll.
 Directors: Richard B. Angus, Adam Creelman, K.C., Hon. James Duns-
 muir, Sir Sanford Fleming, K.C.M.G., Herbert S. Holt, Charles R.
 Hosmer, Hon. Robert McKay, Wilmott D. Matthews, David McNicoll,
 Sir Edmund B. Osler, M.P., Sir Thomas G. Shaughnessy, Sir
 Thomas Skinner, Bart., Rt. Hon. Lord Strathcona, G.C.M.G., Sir
 William C. Van Horne, G.C.M.G., Sir William Whyte.
 Secretary: W. R. Baker.
 Treasurer: H. Suckling.
 Manager: P. L. Naismith.
 General Superintendent: Lewis Stockett.
 Superintendent: D. G. Wilson.
 Mine Manager: John Watters.
 Overman: T. Bastian.
 Examiners: R. Archer, A. Barclay, G. Thompson, R. Littler, J. Littler,
 W. Hartley, A. Watters, William Embree and R. Smith.
 Engineer: R. Dougall.
 Master Mechanic: D. Smith.
 Head Office: Calgary, Alta.
 Mine Office: Bankhead, Alta.

During the year several of the seams on this property have been opened out at higher levels and two self-acting inclines have been put into operation on the surface for the purpose of lowering the coal from those levels to the screening plant. A new machine shop has been erected and also 19 houses for employees.

The mine operated by Henry Therriault is situated near Long Coulee and has only been operating on a small scale, the coal being sold to the settlers of the district. The coal which is lying practically level is 2 feet 6 inches in thickness.

Redcliff Brick and Coal Company, Limited.

This company are operating both a shale and a coal mine near Redcliff. The coal which has a good roof and pavement averages 5 feet in thickness.

The mine operated by R. W. K. Cousins is situated near Nevis and is operating a coal seam about 3 feet 6 inches in thickness above which is a good sandstone roof.

The Mitford (Calgary) Colliery Company, Limited.

Authorized Capital: \$1,000,000.00.
President: R. B. Bennett, M.P.
Directors: R. B. Bennett, M.P., Clement H. Pollen and Alexander Hannah.
Secretary: Alexander Hannah.
General Manager: F. H. Bell.
Overman: John Russell.
Examiner: N. Duncan.
Head Office: Clarence Block, Calgary, Alberta.
Mine Office: Mitford, Alta.

During the year very little development work has been done in this mine, the operations being confined to driving the main slope and necessary airway connections for the purpose of proying the seam.

The slope has been driven 1280 feet from the surface, the average dip being about 29 degrees.

The mine operated by Robert Cook is situated on the East half of Section 4, Township 31, Range 22, West of the 4th Meridian, and is leased to the Knee Hill Coal Company, Limited. During the year an air shaft was sunk to the coal and a small quantity of coal worked.

The mine operated by W. E. Watkins is situated near Champion and is operated by means of a slope driven at an inclination of 50 degrees from the surface to the coal seam. The seam which is 3 feet 6 inches in thickness has a soft sandstone roof and a clay bottom and is being operated on a small scale.

Prairie Coal Company, Limited.

Authorized Capital: \$1,000,000.00.
President: George F. Wilson.
Vice-President: James Balfour.
Directors: John King, James Wood, H. J. Smith, C. R. Westgate.
Secretary-Treasurer: F. M. Jordon.
Managing Director: C. R. Westgate.
Mine Manager: T. E. Moore.
Head Office: Darke Block, Regina, Sask.
Mine Office: Bow City, Eyremore, Alta.

This mine is only supplying local trade as development work has been held back until railway connection has been established. A spur line 17 miles in length is being built to the mine and will connect with the main line of the Canadian Pacific Railway near Cassils.

The Georgetown Collieries, Limited.

Authorized Capital: \$50,000.00.
Chairman: Sydney K. George.
Directors: Sydney K. George, John T. Phoenix, S. C. K. George and Sir Thomas H. Holdrick.
Secretary: W. E. G. Hale.
Managing Director: S. C. K. George.
Agent: George M. Burd.
Mine Manager: J. Musgrove.
Examiners: Joe Sedlock, George Rankin and William Ashurst.
Engineer: A. D. Bryden.
Head Office: 28-30 Lime Street, London E.C., England.
Mine Office: Georgetown, Canmore, Alta.

Operations were commenced at this mine in the early part of this year. The mine is entered by means of slopes which have been sunk on the coal seam for a distance of 300 feet at an inclination varying from 32 to 16 degrees.

The mine is connected to the Canadian Pacific Railway by means of a spur track about two miles long. Two 100 h.p. boilers; one 50 k.w. generator; one electrically driven pump; one Sirocco fan and hoisting engine have been installed. Thirty-one miners' houses, offices, stores and other buildings have been erected during the year.

There are a number of seams on this property varying in thickness from 4 feet 6 inches upwards.

Bawlf Collieries, Limited

Operations in this mine have been suspended for over a year and no work has been done.

Bow City Colliery Company.

Very little development work has been done at this mine during the year, the coal being sold for local use only.

Brazeau Collieries, Limited.

Authorized Capital: \$4,000,000.00
President: Sir William McKenzie.
Vice-President: Martin Nordegg.
Directors: Sir Donald D. Mann, A. J. Mitchell, George W. Buxenstein, Emil Baerwald, L. Jadot.
Secretary-Treasurer: H. Prudhomme.
Assistant Secretary-Treasurer: R. P. Ormsby.
Consulting Engineer: Ernest Gheur.
Mine Manager: Andrew A. Millar.
Overman: R. T. Stewart.
Engineer: William Stevenson.

Head Office: 9 Toronto Street, Toronto, Ont.
Western Office: Red Deer, Alta.
Mine: Nordegg, Alta.

A considerable amount of development work has been done by this company during the past year. It is expected that the railway which is at present being operated from Red Deer will reach the mine about the beginning of March when much more extensive development will take place.

The mine operated by G. H. Knowlton which is situated west of Carstairs has been closed down since the early part of the year owing to the lack of shipping facilities.

Newcastle Coal Company, Limited.

Authorized Capital: \$250,000.00.
President: Jesse Gouge.
Directors: G. N. Coyle, Maud Gouge, G. W. Coyle and Jesse Gouge.
Secretary-Treasurer: G. N. Coyle.
Managing Directors: Jesse Gouge and G. N. Coyle.
General Manager: Jesse Gouge.
Mine Manager: James Holden.
Overman: Joseph Parker.
Examiner: Joseph Parker.
Engineer: George Davis.
Master Mechanic: James Smith.
Head Office: Drumheller, Alta.
Mine Office: Drumheller, Alta.

An electrically driven fan and a 30 h.p. steam hoisting engine have been installed during the year and siding accommodation provided.

Redcliff Clay Products Company, Limited.

Authorized Capital: \$100,000.00.
President: J. E. Lussier.
Vice-President: J. S. L. Farmer.
Directors: J. E. Lussier, J. S. L. Farmer, J. H. Bryant and G. A. B. Jackson.
Secretary: J. H. Farmer.
Treasurer: L. H. Bryant.
General Manager: L. H. Bryant.
Managing Director: L. H. Bryant.
Overman: A. Learmouth.
Head Office: Redcliff, Alta.
Mine Office: Redcliff, Alta.

This mine which is operating a seam of shale is situated near Redcliff. A considerable amount of development work has been done underground during the year and a large number of kilns rebuilt.

Vulcan Coal Company, Limited.

Authorized Capital, \$500,000.00.
President: A. J. Sayre.
Vice-President: J. W. Davidson.
Directors: A. J. Sayre, J. W. Davidson, E. R. Mosher.

Secretary-Treasurer: E. R. Mosher.
 Managing Director: A. J. Sayre.
 Head Office: Calgary, Alberta.

This mine has not been in operation during the past year owing to the lack of shipping facilities.

Rosedale Coal and Clay Products Company, Limited.

Authorized Capital: \$1,500,000.00.
 President: William Georgeson.
 Vice-President: James F. Moodie.
 Directors: Dr. J. R. Pirie, W. Georgeson, J. F. Moodie, Mrs. Stirrett,
 H. H. Moore, William Curson.
 Secretary: Alexander Hannah.
 Treasurer: William Carson.
 Managing Director: William Georgeson.
 General Manager: James F. Moodie.
 Overman: James Moodie.
 Examiner: D. Archibald.
 Consulting Engineer: B. W. Dunn, E.M.
 Master Mechanic: K. Moodie, B.A.Sc.
 Head Office: Calgary, Alta.
 Mine Office: Rosedale, Alta.

A large amount of development work has been done during the year and preparations made for a large output when railway facilities have been obtained.

Rose Deer Coal Mining Company, Limited.

Authorized Capital: \$1,000,000.00.
 Vice-President: Charles S. Smith.
 Directors: S. A. Tupper, G. V. Tupper, Charles S. Smith, P. Laurendeau,
 A. E. St. Lariesnt and R. F. de Mere Lemon.
 Secretary: S. A. Tupper.
 Treasurer: George V. Tupper.
 Mine Manager: S. Harrison.
 Mine Office: Drumheller, Alta.

The following plant has been installed during the year: One Leonard Tubular boiler 78 h.p.; one 10 inch by 12 inch Canadian Rand air compressor; a power house has also been built. The coal is mined by means of a Canadian Rand Radial machine and has a good roof and pavement.

Drumheller Coal Company, Limited.

Authorized Capital: \$500,000.00.
 President: Samuel Drumheller.
 Vice-President: D. M. Drumheller.
 Directors: D. M. Drumheller, Samuel Drumheller, Jerome L. Drumheller,
 Patrick C. Shine and James Finlay.
 Secretary-Treasurer: J. L. Drumheller.
 Managing Director: Samuel Drumheller.
 General Manager: Samuel D. Wark.
 Mine Manager: Samuel D. Wark.
 Overman: Samuel D. Wark.
 Examiner: Horatio Nelson.
 Engineers: W. J. Sloan and Adam Gray.

Master Mechanic: W. J. Sloan.
Head Office: Drumheller, Alta.
Mine Office: Drumheller, Alta.

Three thousand eight hundred feet of railway siding have been constructed and the following plant installed: One 150 h.p. Jenckes boiler; one 20 h.p. steam hoist and a tippie capable of handling an output of 500 tons per day. A wash-house and several other buildings have been erected.

Arrangements are being made for the erection of a Marcus Screen within the next few weeks.

The mine operated by Joseph Woolings is situated near Priddis and is only operated on a small scale. The coal which is 6 feet 9 inches in thickness and pitching at an inclination of about 40 degrees has a good sandstone roof.

Big Valley Collieries, Limited.

Authorized Capital, \$100,000.00.
President: John Gillespie.
Vice-President: S. L. Smith.
Directors: John Gillespie, S. L. Smith, A. Albertson and W. Gillespie.
Secretary-Treasurer: W. Gillespie.
Managing Director: John Gillespie.
General Manager: John Gillespie.
Overman: Al. Albertson.
Engineer: T. Rattray.
Master Mechanic: T. Rattray.
Head Office: Gillespie Elevator, Edmonton, Alta.
Mine Office: Big Valley, Alta.

During the year several buildings have been erected at this mine and an air compressor installed. The coal is mined by means of an Ingersoll Punching Machine.

Midland Collieries, Limited.

Authorized Capital: \$300,000.00.
President: T. G. McMullen.
Directors: T. G. McMullen, W. G. Fraser, W. F. Jennison, M.E., A. G. Gould and W. I. MacDougald.
Secretary-Treasurer: James MacMurray.
General Manager: S. Lent McMullen.
Mine Manager: John Robertson.
Overman: Alex. Stewart.
Engineers: Walter Marvin and Harry Peters.
Head Office: Truro, Nova Scotia.
Mine Office: Drumheller, Alta.

A slope has been sunk on this property intersecting two seams of coal. The length of the slope from the surface to the first seam is 225 feet and to the second seam 276 feet. A spur track has been built to this mine and a screening plant erected.

Redcliff Pressed Brick Company, Limited.

Authorized Capital: \$150,000.00.
President: James Hargrave.
Vice-President: James Mitchell.
Directors: Dr. J. C. Hargrave, A. W. Woodcock, John Jackman and Hubert J. Sissons.
Secretary-Treasurer: Hubert J. Sissons.
Managing Director: Hubert J. Sissons.
Mine Manager: Henry Parmentier.
Overman: Henry Parmentier.
Engineer: Fred Belisle.
Master Mechanic: John Jackman.
Head Office: Redcliff, Alta.
Mine Office: Redcliff, Alta.

This mine which is operating a seam of shale has only been operated on a small scale during the past year.

The Saunders Creek Coal Company, Limited.

Authorized Capital: \$200,000.00.
President: James Wright.
Directors: James Wright, Perry McDermott and Ed. Fortner.
Secretary: E. S. Brett.
Treasurer: James Wright.
Managing Director: Ed. Fortner.
General Manager: Ed. Fortner.
Overman: Ed. Fortner.
Head Office: Saunders Creek, via Rocky Mountain House, Alta.
Mine Office: Saunders Creek, Township 40, Range 12, West of the 5th Meridian.

A seam of coal about 10 feet thick is being operated by this company and 1,500 feet of railway siding constructed. The coal is lowered from the mine to a temporary tippie by means of an incline.

EDMONTON DISTRICT.

ELIJAH HEATHCOTE, DISTRICT INSPECTOR OF MINES, WETASKIWIN.

The Clover Bar Coal Company, Limited.

Authorized Capital: \$500,000.00
President: H. E. R. Rogers.
Vice-President: J. J. Millidge.
Directors: H. E. R. Rogers, J. J. Millidge and H. H. Robertson.
Secretary: J. F. Hunter.
Treasurer: H. H. Robertson.
General Manager: J. F. Hunter.
Mine Manager: D. Jones.
Overman: George Booth.
Engineer: A. G. Moulton.
Head Office: Edmonton, Alta.
Mine Office: Clover Bar, Alta.

The main entries in this mine have been re-timbered during the year and a level driven for the purpose of regaining some old pillars. No further work of any importance has been done.

The mine operated by William Daly near Clover Bar is only operated on a small scale and is closed down entirely during the winter months.

The mine operated by the White Star Coal Company, Limited, is situated nine miles south-west of Edmonton and as there are no railway connections it is only operated on a small scale and is practically closed down during the summer months.

The Cardiff Collieries, Limited.

Authorized Capital: \$700,000.00.
President: J. W. de O'Grady.
Vice-President: Andrew Keeley.
Directors: J. W. de O'Grady, A. Keeley, E. A. James, H. H. Chown and S. Fisher.
Secretary: W. T. Powis.
Treasurer: E. A. James.
Managing Director: J. W. de O'Grady.
General Manager: G. H. Eaton.
Mine Manager: J. A. Church.
Overman: A. McGregor.
Examiner: Sam Turner.
Engineer: J. A. Church.
Master Mechanic: M. J. Saunders.
Head Office: 1202 McArthur Building, Winnipeg, Man.
Mine Office: Cardiff, Alta.

During the year a fan has been installed and an air-shaft put down. The coal is mined by means of chain coal cutters driven by electricity and the mine cars have a capacity of 3 tons. A Leonard boiler of 150 h.p. has also been installed.

The Humberstone Coal Company.

General Manager: E. E. Brewer.
Mine Manager: Wm. Duggan.
Overman: John Duggan.
Engineer: J. E. Lee.
Master Mechanic: James Cheyne.
Head Office: 216 Jasper Avenue E., Edmonton, Alta.

During the year a main and tail rope haulage driven by a steam engine placed at the bottom of the shaft has been installed, also a new wash-house and screens. A steam engine has been installed for driving the fan and to replace the gasoline engine which has been in use for some time.

Edmonton Standard Coal Company, Limited.

Authorized Capital: \$500,000.00.
President: H. Waddington.
Vice-President: W. G. Ellis.
Secretary-Treasurer: William Munns.
Managing Director: William Munns.
General Manager: W. C. MacKay.
Mine Manager: John W. Marshall.
Engineer: Andrew Black.
Head Office: Toronto, Ont.
Mine Office: Edmonton, Alta.

During the year the hoisting shaft has been sunk to the lower seam which is at a depth of 30 feet below the seam at present being worked and arrangements have been made to commence development work on this seam immediately.

The mine operated by Keith & Fulton is situated near Clover Bar and is operated on a small scale for the purpose of supplying local demand. A gasoline engine which is used for operating the fan and for pumping water from the mine has been installed during the year.

The mine operated by Byers Brothers is also situated near Clover Bar and operated on a small scale for the purpose of supplying local demand. A small tippie has been erected during the year and an open running fan 8 feet in diameter driven by a 4½ h.p. gasoline engine has been installed.

The mine operated by R. P. Ottewell near Clover Bar is also operated on a small scale for supplying local demand. The only improvement of note during the year at this mine was the erection of a fairly large coal bunker.

The mine operated by George E. Fiske on the banks of the Sturgeon River near Namao is operated on a small scale for the purpose of supplying local demand. An air shaft was sunk during the year and arrangements are being made to sink a larger hoisting shaft during the coming summer near the railway.

The Alberta Coal Mining Company, Limited.

Authorized Capital: \$250,000.00.
President: James L. Bell.
Vice-President: W. L. Coster.
Directors: James L. Bell, W. L. Coster, and George S. Montgomery.
Secretary-Treasurer: George S. Montgomery.
Managing Director: George S. Montgomery.
Mine Manager: Norman Fraser.
Overman: Gus Ostheidt.
Engineer: Thomas Elliott.
Master Mechanic: Dolphus Dubia.
Head Office: Room 10 Empress Block, Edmonton, Alta.
Mine Office: Cardiff, Alta.

During the year several ventilation shafts have been sunk at this mine and alterations have been made on the screens, the principle improvement being a heating arrangement to keep the screens from freezing in the extreme cold weather.

Dawson Coal Company, Limited.

Authorized Capital: \$30,000.00.
President: Richard Secord.
Vice-President: Jonathan Henderson.
Directors: R. Secord, J. Henderson, H. J. Dawson and J. D. Hyndman.

Secretary-Treasurer: Chas. A. Hyndman.
General Manager: Chas. A. Hyndman.
Mine Manager: John A. McLenhan.
Overman: John A. McLenhan.
Examiner: Ray Blakemore.
Engineer: John A. McLenhan.
Master Mechanic: William Gillies.
Head Office: McDougall Court, Edmonton, Alta.
Mine Office: Edmonton.

During the year a hoisting shaft containing two compartments each 6 feet 6 inches by 5 feet 8 inches and one compartment 3 feet by 6 feet 6 inches has been completed. The main roadways have been enlarged and re-timbered and a double landing has also been made at the shaft bottom 160 feet long. The underground haulage is now done by means of horses. Two new duplex pumps have been installed; a new tippie erected and arrangements made for weighing screened coal. A wash house has also been erected, and a 90 h.p. boiler of the locomotive type installed. A 35 h.p. hoisting engine for driving the fan has also been installed. It is expected that the output from this mine during the present year will be very much increased.

The mine operated by The Western Coals, Limited is situated on the banks of the Saskatchewan River about four miles from Edmonton and is entered by means of a shaft. A fan has been installed during the past year and the air courses repaired and considerably enlarged.

It was found necessary to install locked safety lamps in this mine as a fairly large amount of fire-damp was being given off. The mine is operated on a small scale.

The mine operated by J. J. McDevitt near Tofield is entered by means of a shaft 22 feet in depth. The mine is operated on a small scale for the purpose of supplying local demand.

Twin City Coal Company, Limited.

Authorized Capital: \$600,000.00.
President: R. L. McIntyre.
Vice-President & Agent: J. A. Morden.
Directors: R. L. McIntyre, J. A. Morden, J. M. Sinclair, Oliver Baird and John Mackrell.
Secretary-Treasurer: James M. Sinclair.
Managing Director: J. A. Morden.
Overman: Donald McKay.
Examiners: George Roughead, J. Lauchlan, and J. Heathcote.
Engineer: Norman Fraser.
Head Office: 239-240 Confederation Life Building, Toronto, Ont.
Mine Office: Edmonton South, Alta.

The output at this mine has been largely increased during the past year, the coal being mined by means of Canadian Rand Radial machines. One Standard Class C. 2 Air Compressor, built by the Canadian Ingersoll Rand Company has been installed and one hundred mine cars added to the equipment.

The Yellowhead Pass Coal and Coke Company, Limited.

Authorized Capital: \$5,000,000.

President: M. J. O'Brian.

Vice-President: M. Doheny.

Directors: Hugh Doheny, H. T. Trihey, G. H. Richardson, M. Doheny and F. Stanley.

Secretary-Treasurer: F. W. Rous.

General Manager: J. O. Hannah.

Mine Manager: Thomas Mather.

Overman: Cory Weatherby.

Examiners: Ellis Ludbrook and J. Gladwin.

Engineer: W. J. Keith McKay.

Master Mechanic: Norman Henderson.

Head Office: Montreal, Que.

Mine Office: 24 Credit Foncier Block, Edmonton, Alta.

During the year a power house has been erected and a return tubular boiler of 100 h.p. capacity installed. An air-compressor for the purpose of driving coal-cutting machines has also been installed, and a screening plant equipped with shaking screen capable of handling 500 tons of coal per day. A Sirocco fan capable of producing 30,000 cubic feet of air per minute with 1½ inch water gauge has also been added to the plant.

The following improvements have also been made: Wash-house; improvements and additions to living quarters; additional loading yard tracks and electric lighting of plant and buildings. Only Monobel powder is used for blasting, all shots being fired by means of electric batteries. Safety lamps of the Wolf type are installed throughout the mine. A considerable amount of development work has been done underground in preparation for a much increased output. The seams are pitching at an inclination of 45 degrees.

The Pembina Coal Company, Limited.

Authorized Capital: \$1,100,000.00.

President: H. M. E. Evans.

Vice-President: I. H. M. Emslie.

Directors: H. M. E. Evans, I. H. M. Emslie and Lionel West.

Secretary: Lionel West.

Treasurer: I. H. M. Emslie.

Managing Director: H. M. E. Evans.

General Manager: M. L. Hyde.

Mine Manager: E. I. Roberts.

Overman: George Pembleton.

Chief Engineer: Frank Raymond.

Head Office: Edmonton, Alta.

Mine Office: Evansburg, Entwistle, Alta.

The plant at this mine which is capable of handling 1,200 tons of coal per day has been completed during the past year. In the power house a 200 k.w. Turbo Generator and an additional 150 h.p. return tubular boiler were installed. A conveying system and coal storage bin for taking coal from the tippie to the boilers were also installed. Twenty-four additional miners' houses were built and two miles of spur track and track scales were put in. An office was also built at the mine.

The main shaft bottom in the upper seam was completed with approximately 1 mile of entry work and eighteen rooms. The air shaft was sunk from the upper seam to the lower,

a distance of 30 feet and a tunnel driven on an inclination of 30 degrees between these two seams. Development work in the lower seam was completed to bring the output from this seam up to 200 tons per day. An electric hoist for hauling cars up this slope was also installed. Three Sullivan and one Shortwall machine; one 6 ton Jeffrey locomotive; one 5 ton Goodman locomotive; four Jeffrey electric coal drills; two Cameron steam pumps; and one American three stage electrically driven centrifugal pump were installed underground. Fifty mine cars of $1\frac{1}{2}$ tons capacity were also added to the equipment.

The shaft is equipped with self dumping cages, wood guides and automatic signals. A Crawford & McCrimmon fan, 14 feet in diameter, direct driven has also been installed for ventilation purposes.

It is intended in the future to obtain the principle part of the output from the lower seam at this mine. A wash-house equipped with shower baths and chain lockers has also been installed.

Canadian Coal and Coke Company, Limited.

Pacific Pass Colliery.

Authorized Capital: Stock Preferred, \$4,000,000.00; Ordinary \$11,000,000.00.

President: H. A. Lovett, K.C.

Vice-President: E. B. Greenshields.

Directors: Hon. Robert Mackay, J. S. Hough, K.C., J. W. McConnell,

Hon. Nathaniel Curry, J. T. Ross, R. Brutinel, A. H. Cook, K.C., Hon.

W. B. Ross, and J. M. Robinson.

Secretary-Treasurer: Samuel T. Mains.

Chief Engineer: Charles Fergie.

General Superintendent: Peter Christianson.

Mine Manager: Peter Christianson.

Overman: Wm. Healey.

Examiners: Peter Murphy, John Williams, Michael Joice.

Engineer: F. S. De Sieyes.

Master Mechanic: H. Pallett.

Head Office: Montreal, Que.

Mine Office: Fergie, Bickerdike, Alta.

A temporary wooden tippie connecting the mines which are situated on the north and south sides of the river and capable of handling 500 tons per day has been erected. A lamp-house for 600 lamps; a wash-house with 240 steel lockers and 16 shower baths; a machine, carpenter and smith's shop and two 150 ton railway scales have been installed during the year. Thirty dwelling houses for the accommodation of workmen, a hospital and a colliery office together with a fire-proof vault have been erected.

A considerable amount of development work has been done during the year and several overcasts built in the mine. Two hundred mine cars of 2,200 pounds capacity each have been added to the equipment.

A considerable amount of material and machinery for a new plant has arrived on the ground and it is intended to erect during the coming year a modern screening plant capable of handling a large output.

The Capital Coal Company, Limited

Authorized Capital: \$50,000.00.
President: J. B. Dube.
Vice-President: P. Gervais.
Directors: J. B. Dube, P. Gervais and J. A. Trudeau.
Secretary-Treasurer: J. A. Trudeau.
Managing Director: P. Gervais.
General Manager: J. B. Dube.
Mine Manager: William Pickles.
Examiner: E. Richards.
Engineer: E. Gervais.
Master Mechanic: J. Richards.
Head Office: 615 First Street, Edmonton, Alta.
Mine Office: Cardiff, Alta.

During the year a 35 h.p. boiler of the locomotive type, a new hoisting engine 12 inches by 8 inches and a new screening plant were installed. The tippie has a capacity of 500 tons per day. A considerable amount of development work has been done underground and two additional air shafts opened. Fifty mine cars have been added to the equipment.

The Tofield Coal Company, Limited

President: Robert Lee.
Vice-President: W. I. Crafts.
Secretary-Treasurer: Claude Gallinger.
Mine Manager: A. Duncan, Sr.
Overman: David Morris.
Engineer: Wm. J. Morton.
Head Office: Edmonton, Alta.
Mine Office: Tofield, Alta.

This company are operating a seam of lignite coal near Tofield by stripping the surface.

The mine which is being operated by the Spicer Coal Co., Ltd., is situated near Dinant, the Head Office of the Company being at Saskatoon, Sask. There have been no improvements of note during the past year.

The mine operated by the Round Hill Collieries, Ltd., is situated near Round Hill and is being operated on a small scale for the purpose of supplying local demand. There have been no improvements of any importance at the mine during the past year.

The Wabamun Power & Coal Company, Limited.

Authorized Capital: \$200,000.00.
President: Arthur Davies.
Vice-President: T. M. Grindley.
Directors: E. W. Day, Arthur Davies, T. M. Grindley, J. H. Gariepy, H. W. Campbell, George Harcourt, C. W. Leonard, J. W. Bell and W. C. Dunn.
Secretary-Treasurer: W. C. Dunn.
Overman: A. E. Powell.
Examiner: Wm. Roberts.
Head Office: 324 Tegler Block, Edmonton, Alta.
Mine Office: Wabamun, Alta.

This mine has been worked on a small scale during the past year, very little development work being done.

Canadian Coal & Coke Company, Limited.

St. Albert Colliery

Authorized Capital: \$15,000,000.00.
 President: H. A. Lovett, K.C.
 Vice-President: E. B. Greenshields.
 Directors: Hon. Nathaniel Curry, Hon. Robert Mackay, M. McPherson and R. Brutinel.
 Secretary-Treasurer: S. T. Mains.
 General Manager: Charles Fergie.
 Mine Manager: E. Ashburner.
 Overmen: A. McKay and J. Davis.
 Master Mechanic: R. P. Cooke.
 Head Office: Transportation Building, Montreal, Que.
 Mine Office: St. Albert, Alta.

This company is operating a seam of lignite coal which is 7 feet in thickness. During the year, the trackage has been completed, a Jenkes Geared Hoist, a temporary tippie and head frame and a steam driven steel Sullivan reversible fan 6 feet in diameter have been installed.

The shaft which is 321 feet deep to the coal is lined with concrete for a distance of 221 feet, after which it is lined with timber for the remaining 100 feet. Development work is being pushed ahead rapidly at this mine and it is expected that it will be a large producer in the near future.

Jasper Park Collieries, Limited.

Authorized Capital: \$2,500,000.00.
 President: J. L. Washburn.
 Vice-President: J. L. Cote, M.P.P.
 Directors: J. L. Washburn, Andrew Laidlaw, J. L. Cote, M.P.P., M. H. Alworth, M. W. Alworth, E. B. Hawkins and R. H. Morris.
 Secretary: H. E. Pearson.
 Treasurer: R. J. Maxwell.
 Managing Director: J. L. Washburn.
 General Manager: R. H. Morris.
 Mine Manager: Edwin Sparrow.
 Overmen: Allen Brown and Charles Chestnut.
 Examiners: J. J. Thomas, A. Scott, M. Cranston and H. Kaye.
 Engineer: H. E. Nold.
 Master Mechanic: Alex. McDonald.
 Head Office: Duluth, Minn.
 Mine Office: Pocahontas, Alta.

During the past year a wash-house equipped with shower baths and steel lockers has been erected and an electrically driven fan 7 feet in diameter has been put into operation. A compressed air haulage equipment consisting of one Ingersoll Rand, 4 stage air compressor and 3 H.K. Porter 8 ton air locomotives have been installed.

On the north side of the Athabasca River, the main transcontinental line of the Canadian Northern Railway has been completed to a point west of the mine. A temporary tippie has been erected and preparations made for handling a fairly large output. A level has been driven in No. 3 seam which is 6 feet in thickness and pitching at an inclination

of 80 degrees. No. 4 seam which is also 6 feet in thickness and pitching at 70 degrees has also been developed. A level is also being driven in No. 5 seam which is 6 feet in thickness and pitching at an inclination of 45 degrees.

At the mine situated on the south side of the Athabasca River a considerable amount of development work is also being done.

The Great West Coal Company, Limited.

Authorized Capital: \$150,000.00.
President: James C. Dunn.
Directors: James C. Dunn, Alex. C. Dunn and W. S. Cupples.
Secretary-Treasurer: Thomas S. Campbell.
Mine Manager: Alex. C. Dunn.
Overmen: John Russell and Thomas Strickland.
Master Mechanic: A. Biamonte.
Head Office: 108 Rice Street, Edmonton, Alta.
Mine Office: Clover Bar, Alta.

During the year a Schiele fan has been installed and considerable development work done underground.

The mine operated by the Mountain Park Coal Company, Limited, is situated on what is known as the Alberta Coal Branch, which leaves the main transcontinental line of the Grand Trunk Pacific Railway near Bickerdike. This mine is still in the development stage but no improvements of any importance have been made during the year. The steel to the mine was completed during the fall. Monobel is used for blasting, all shots being fired by means of an electric battery. Safety lamps of the Wolf type are used throughout the mine.

Battle River Collieries, Limited.

Authorized Capital: \$300,000.00.
President: A. S. Rosenroll.
Vice-President: Charles F. Stacey.
Directors: A. S. Rosenroll, C. F. Stacey and A. Bramley Moore.
Secretary-Treasurer: A. S. Rosenroll.
Managing Director: A. S. Rosenroll.
Mine Manager: George F. Cunningham.
Master Mechanic: John Innis.
Head Office: Rosenroll, Alta.
Mine Office: Rosenroll, Alta.

The hoisting shaft which gave signs of collapse has been repaired and retimbered from top to bottom during the past year. A two-compartment shaft is being sunk at a distance of 482 feet from the present shaft, each compartment being 5 feet 6 inches by 6 feet 6 inches clear. A reversible fan 4 feet 6 inches in diameter has also been installed. The mine which is being opened out on the two-entry system is being rapidly developed.

The Dobell Coal Company of Tofield, Limited.

Authorized Capital: \$100,000.00.
President: W. M. Dobell.
Vice-President: A. E. Doucet.
Directors: W. M. McPherson, Lorenzo Evans, R. R. Dobell, and T. R. Henderson.
Secretary-Treasurer: F. C. Judge.
Managing Director: T. R. Henderson.
Head Office: 138 St. Peter Street, Quebec.
Mine Office: Tofield, Alta.

This coal seam is being worked by stripping the surface by means of a steam shovel. No improvements have been made of any importance during the past year.

The Gainford Collieries, Limited.

Authorized Capital: \$1,200,000.00.
President: Hon. D. C. Cameron, Lieut. Gov. of Manitoba.
Vice-President: D. R. Fraser.
Directors: Hon. D. C. Cameron, D. R. Fraser, John Cameron and D. J. McNamara.
Secretary: F. L. Christie.
Treasurer: John Cameron.
Managing Director: John Cameron.
Mine Manager: Leonard C. Stevens.
Examiner: Robert Rawlinson.
Engineer: Leonard C. Stevens.
Master Mechanic: James A. Clark.
Head Office: 208 Canadian Pacific Railway Building, Edmonton, Alta.
Mine Office: Gainford, Alta.

A screening plant capable of handling an output of 1,200 tons per day is being erected and equipped with Marcus screens. The following plant has been installed:—An Ottumwa hoisting engine 16½ inches by 32 inches with a drum 4 feet in diameter; two Frost boilers of 150 h.p. capacity each, fitted with single smokestack and breeches piece; a closed type feed water heater; one 250 K.W. Allen generator set direct coupled, and one 65 K.W. unit driven by an ideal engine.

A wash-house, blacksmith's shop, engineer's shop and saw-mill have also been erected. A hoisting shaft 12 feet by 16 feet partially lined with timber and partially with concrete has been sunk during the year. The workings are opened out on the three entry room and pillar panel system. Two Cameron pumps arranged in duplicate, each capable of handling the growth of water in the mine, and one small Duplex pump, and one light service Cameron pump have also been installed. Twenty-five pounds steel has been laid in the main entries with a 3 feet gauge. The coal seam which is 5 feet in thickness is at a depth of 116 feet from the surface.

No development work has been done on the property owned by The North Alberta Syndicate, Ltd., which is situated between four and five miles from the main line of the Grand Trunk Pacific Railway east of Pochontas.

Operations have been commenced recently at the mine operated by the New Era Coal Company, Ltd., which is situated near Lake Wabamun but no improvements of any importance have been made during the year.

WORK OF INSPECTION.

The inspectors have visited and inspected the different mines in their respective districts as often as possible and have investigated the causes of all fatal and serious accidents and have attended all inquests which have been held and have also, where practicable, taken the necessary steps to have the causes of those accidents removed.

Safety lamps are used in all the mines in the bituminous and anthracite coal fields and in several of the mines in the lignite coal fields where gas has been found and only explosives which are on the British Permitted List are allowed to be used in those mines.

Loose Black Powder is used in a large number of the mines in the lignite field although compressed black powder is now being used in a number of the mines with very satisfactory results. All shots are fired by means of electric batteries in all mines where safety lamps are used. Shot-firing has also been still further reduced with the result that a better marketable coal is now being produced.

Very strict measures are taken by the inspectors to stop all shooting off the solid.

Telephones have been installed in the more important mines of the Province and are proving of great service both in assisting the management of the mine and in obtaining assistance when an accident occurs.

The inspectors of the Crow's Nest Pass and Lethbridge districts have given a considerable amount of attention to the Mine Rescue Stations and to this attention is due, to a great extent, the progress which is being made with the mine rescue work in these districts.

The Crow's Nest Pass inspection district includes all the mines located west Pincher Creek; the Lethbridge inspection district includes the mines around Lethbridge, those adjacent to the main line of the Canadian Pacific Railway from Lethbridge to Bow Island and those adjacent to the Aldersyde Branch; the Calgary inspection district includes all the mines on the main line of the Canadian Pacific Railway west of Calgary and those located in the territory between the main line from Calgary to Medicine Hat and north to the Lacombe Branch of the Canadian Pacific Railway; the Edmonton inspection district includes all the mines north of the Calgary district.

MINE RESCUE WORK

I am pleased to report that during the year, considerable progress has been made in connection with Mine Rescue Work in the Province.

There are three mine rescue stations in operation and arrangements have been made with the Canadian Pacific Railway Company to obtain another passenger coach which will be equipped as a mine rescue car and will operate between Bankhead and Canmore.

Of the stations which are at present in operation, one is situated at the No. 6 mine operated by the Department of Natural Resources of the Canadian Pacific Railway Company near Lethbridge, another is situated near the Lethbridge Collieries of the Canadian Coal & Coke Company, Limited, and the third is the Mine Rescue Car No. 1 which operates between Coleman and Burmis. Both the Lethbridge Stations

are under the supervision of Mr. Duncan McDonald and the car is under the supervision of Mr. William B. Powell.

All these stations are equipped with the Fleuss and Salvator type of mine rescue apparatus. The No. 1 Station at Lethbridge is equipped with the following apparatus:—

- 6 Apparatus of the Proto type.
- 5 Apparatus of the Salvator type.
- 2 Compression pumps.
- 1 Draeger pulmotor.
- 1 Inhalation apparatus.
- 1 Animal Tester.
- 12 Electric hand lamps.
- 1 Rectifier for recharging lamps.
- 1 Meter for testing reducing valves.
- 17 Large oxygen storage cylinders (100 Cubic Feet capacity).
- 6 Heat Helmets.
- 1 First Aid Cabinet.
- 1 Valeda Stretcher.

The No. 2 Station at Lethbridge is equipped with the following apparatus:

- 6 Apparatus of the Proto type.
- 4 Apparatus of the Salvator type.
- 1 Compression pump.
- 1 Draeger pulmotor.
- 1 Animal tester.
- 12 Electric hand lamps.
- 1 Rectifier for recharging lamps.
- 1 Meter for testing reducing valves.
- 14 Large oxygen storage cylinders.
- 6 Heat Helmets.
- 1 Valeda Stretcher.

Each of these stations is also equipped with full appliances for rendering First Aid to the injured. In addition to the equipment mentioned above, a large supply of oxygen and caustic soda is kept on hand at each station.

The apparatus is now allowed to come into Canada free of duty although duty has still to be paid on the caustic soda which is obtained from the United States as we are unable to obtain a satisfactory caustic soda which is manufactured in Canada.

The schedule of training which is in force at both of the Lethbridge Stations is as follows:—

FIRST DAY—Explanation of the apparatus by the Superintendent. Demonstration of the use of the pulmotor and inhalation apparatus. Taking apart and assembling of apparatus.

SECOND DAY—Each member of team to wear apparatus one hour in fresh air and one hour in smoke room in a vitiated atmosphere making five trips through a tunnel 35 feet in length and 18 inches in height.

THIRD DAY—To wear apparatus two hours, transporting a weight of 180 pounds a distance of one mile with the stretcher under full stretcher drill and walk one mile underground.

FOURTH DAY—To wear apparatus two hours in smoke room, making ten trips through a tunnel, each member of the team to cut and set up a number of props and to move 1,000 pounds of rock a distance of 30 feet. Each team is also required to construct a brick stopping 6 feet by 6 feet while in a temperature of from 90 to 100 degrees Fahrenheit.

FIFTH DAY—To wear apparatus for two hours and to apply Salvator to supposed unconscious man underground and transport him by the stretcher a distance of one mile. The team has also to apply pulmotor and make a trip of half a mile underground.

SIXTH DAY—To wear apparatus two hours. To transport a weight of 180 pounds on the stretcher up an inclination of about 1 in 7 and 1,000 yards long. To construct a brick stopping 6 feet by 6 feet with a regulator 24 inches by 24 inches placed in the centre of it in the smoke room. To transport by the fore and aft method a weight of 160 pounds, four times through the regulator.

Each member of the team to dismantle and assemble the apparatus and recharge the small cylinders each day.

The schedule of training is for six days and each team has to take one day's training at least once every three months. Six months from the date of the first training each team is brought together again when they are given a thorough examination, after which those who are found to be satisfactory are granted mine rescue certificates.

The schedule of training which each person has to undergo, proves to them that the most strenuous work can be accomplished with the use of the apparatus and gives them the utmost confidence in it.

Two hundred and one persons have undergone training up to the present time as follows:—

At No. 1 Station, Lethbridge.....	60
At No. 2 Station, Lethbridge.....	10
At temporary station, Blairmore.....	75
On the Mine Rescue Car No. 1.....	56

Out of this number 51 persons have presented themselves for the final examination and have been granted certificates for efficiency.

The work of training has been carried on very satisfactorily and I am pleased to report that no accidents have occurred in connection with the apparatus. This is probably due to the fact that the Proto is so simple in construction that the person being trained very soon becomes fully acquainted with every part of the apparatus and as each person has to take apart and assemble it, he becomes very thoroughly acquainted with it. Each team is also put through a regular stretcher drill both with and without the apparatus so that each person is trained to know how to handle an injured person in the most careful manner. This schedule of training has been altered from time to time

with a view to bringing the training up to the highest point of efficiency and also to satisfy the different persons being trained that they can wear this apparatus for a period of three hours without any ill effects.

The apparatus has also been put through the most severe tests, in some cases the wearer having to stand over strong sulphur fumes for a period of thirty minutes, in a temperature of 100 degrees Fahrenheit with no bad effects.

The Superintendent of the Lethbridge Station has also done a considerable amount of work in connection with First Aid to the injured and has had during the past few months several lectures on this subject.

No calls have been made for the apparatus during the year.

MINE RESCUE CAR NO. 1.

This car was equipped on April 28, 1913, and is a remodelled passenger coach obtained from the Canadian Pacific Railway Company. It is divided into lecture room, office, kitchen and toilet and has six standard berths.

The car may be either heated by means of a heater installed in the car or by means of steam supplied from the mine at which the car happens to be stationed. An electric lighting unit has been installed consisting of $1\frac{1}{2}$ h.p. gasoline engine directly connected to a 42 volt generator. A storage battery of 6 cells, each 50 lbs. in weight is used in connection with the generator from which the current is taken to light the car and to charge the lamps used in connection with mine rescue work.

The equipment which was transferred from the temporary station at Blairmore to the car consists of:—

- 11 Apparatus of the Proto type.
- 6 Apparatus of the Salvator type.
- 2 Oxygen compression pumps.
- 2 Draeger pulmotors.
- 1 Oxygen reviving apparatus.
- 1 Animal Tester.
- 12 Electric hand lamps.
- 2 Valeda Stretchers.
- 1 Meter for testing reducing valves.
- 20 Oxygen storage cylinders (100 cubic feet capacity each).

The car which was put into operation about the beginning of May at Coleman has visited every mine in the Crow's Nest Pass during the year, spending about one month at each mine.

The course of training in connection with the car is as follows:

FIRST DAY—Explanation of the apparatus by the Superintendent. Demonstration of the use of the pulmotor and inhalation apparatus. •

SECOND DAY—Demonstration of the pulmotor on each member of the team and every member of the team on each other, whereby each man gets familiar with the apparatus. Taking out and refilling cylinders and replacing same in pulmotor.

THIRD DAY—Each member of the team is required to set up the apparatus and wear it for one hour in the open air walking two miles, after which he recharges the apparatus.

FOURTH DAY—Repeat Third day's work; ascend 500 or 600 feet; wear apparatus $1\frac{1}{2}$ hours; take apparatus apart and recharge.

FIFTH DAY—Two hours' practice underground pushing cars, carrying rails, carrying each other, lifting rocks, timbers and doing other work. Walk two and one half to three miles.

SIXTH DAY—Smoke room in very strong sulphur fumes for one hour, then a trip in mine or mountain climbing or a long walk as conditions suggest.

SEVENTH DAY—Two hours in strong sulphur fumes in smoke room.

EIGHTH DAY—Two hours in strong sulphur fumes in smoke room.

NINTH DAY—Repeat fifth day's work in mines.

TENTH DAY—Two and a half hours wearing apparatus, crawling and climbing heights and general test work.

Some of the special features of the Proto apparatus are:—

1ST—No important parts liable to be damaged are carried on the back.

2ND—All the valves are under the control and observation of the wearer, who requires no assistance from other members of the team.

3RD—A by-pass or emergency valve is provided.

4TH—The pressure gauge is fixed in such a position that it can easily be seen by the wearer of the apparatus.

5TH—The safety tubes are fitted so that they are not liable to be damaged or detached by contact with projections while being used in the mines.

6TH—The weight is evenly distributed.

7TH—Caustic soda, the absorbent used, can be readily obtained in different forms suitable for the apparatus from various places independent of the manufacturers of the apparatus.

8TH—No injector is used, thereby minimizing the danger from the existence of gas in the surrounding atmosphere, in the event of a leak in the apparatus.

A record of the training work done is kept at each station, in which is recorded any points considered of importance. The oxygen used by the different persons who have been trained shows an average of about 70 atmospheres for two hours, therefore, on this basis the oxygen supply contained in the apparatus when fully charged is capable of lasting $3\frac{1}{2}$ hours. In many instances various persons have used as low as 40 atmospheres in two hours.

Before any person is allowed to be trained he must produce the following medical certificate properly filled in to show that he is

physically fit to undergo training. It is also necessary for a person being trained to produce a certificate showing that he has taken a course in First Aid work fitting him to give assistance to any person injured in or about the mine.

Six months after a man has completed his first course of training he must present himself for another day's training after which, if he is found to be satisfactory he will be granted a certificate.

QUALIFICATIONS OF RESCUE MEN.

Mining men 22 to 50 years old, in good physical condition, who are temperate in their habits and naturally calm and deliberate, are best suited for mine rescue work.

Before a man undergoes training in the use of breathing apparatus, he must be examined by a physician to ascertain his physical condition, especially the action of his heart and lungs and any defects of the nose or throat. Unless a man has a physician's certificate stating that his physical condition is good, he must not be permitted to take rescue training nor to attempt rescue work in a mine.

PHYSICIAN'S EXAMINATION.

Date.....Hour.....M.

Name..... Age.....Residence.....

Occupation.....How long so employed.....

Time of last meal.....Previous illness of recent date,
having regard to rheumatism, fits, spitting of blood, asthma, bronchitis,
giddiness, vertigo, or any unsteadiness of gait.....

Habits as regards smoking and drinking.....

General appearance, paying special attention to the breathing passages,
tonsils and nostrils, also ocular conjunctiva, and any infectious condition
.....?

Urine.....General shape and expansion of the chest
.....(See that clothing is loose)

Frequency of breathing.....

Pulse: frequency.....and character.....

Condition of lungs

Condition of arteries and veins.....

..... Heart action

Nervous or composed temperament?.....

The candidate is.....in condition to undergo mine-rescue
training.

(Signed)

Physician.

The following shows the form in which the record of training of each person is kept:—

MINE RESCUE TRAINING RECORD.

1. Wearer's Name.....

2. Address Occupation.....

3. Employed by

4. Chest: Normal.....Contracted.....Expanded.....Expansion....

5. Age.....Weight.....Height.....Where born.....

6. How long in Alberta.....Can he read and speak English.....

Married.....

7. How long has he been engaged in mining....Coal or metal mines..

8. Respiration: while standing.....After hopping 20 feet.....

9. Date on which training commenced.....

10. Date on which miner charged and set up apparatus.....

Time occupied

11. Type of apparatus used in training.....Number.....

12. First Aid Certificate.....Granted in....on....Association....

13. Month in which training was given.....	..	..	..	..	..	..	..	..	..
14. Dates on	..	..	..	..	..	..	..	..	..
15. Reading of P. G. before commencement..	..	..	..	..	..	..	..	..	..
16. Reading of P. G. when finished	..	..	..	..	..	..	..	..	..
17. Schedule of training used.....	..	..	..	..	..	..	..	..	..
18. Time occupied, wearing apparatus.....	..	..	..	..	..	..	..	..	..
19. Trained in SO ₂ , smoke or fresh air.....	..	..	..	..	..	..	..	..	..
20. Trained in car, smoke room, or elsewhere..	..	..	..	..	..	..	..	..	..
21. Temperature of air	..	..	..	..	..	..	..	..	..
22. Distance walked (miles or fractions)....	..	..	..	..	..	..	..	..	..
23. Distance crawled (feet).....	..	..	..	..	..	..	..	..	..
24. Number of trips over overcast.....	..	..	..	..	..	..	..	..	..
25. Height ascended (feet)	..	..	..	..	..	..	..	..	..
26. ....pounds of.....carried (feet)..	..	..	..	..	..	..	..	..	..
27. Size of prop used.....	..	..	..	..	..	..	..	..	..
28. Sawed end off how many props.....	..	..	..	..	..	..	..	..	..
29. Number of timbers set up	..	..	..	..	..	..	..	..	..
30. Pulse before apparatus is put on.....	..	..	..	..	..	..	..	..	..
31. Pulse just before taking off apparatus....	..	..	..	..	..	..	..	..	..
32. Dizzy (1); Tired (2); Exhausted (3);	..	..	..	..	..	..	..	..	..
Headache (4).....	..	..	..	..	..	..	..	..	..
33. Percentage	..	..	..	..	..	..	..	..	..

34. Total time wearing the apparatus.....Hours.....Minutes

35. Has the wearer full confidence in the apparatus.....

36. Would he make a good mine rescue man

37. Efficiency percentage.....

Date.....191.....

Superintendent.

REMARKS:

.....

.....

.....

.....

MINE RESCUE CERTIFICATES ISSUED BY THE GOVERNMENT OF THE PROVINCE OF ALBERTA DURING THE YEAR 1913.

Name.	Occupation.	Employed By	Cert. No.	Station.
Allen, William C.	Examiner	International Coal & Coke Company, Limited.	2	Crow's Nest Pass.
Aspinall, Francis	Dist. Insp. of Mines	Government of Alberta	8	Crow's Nest Pass.
Buck, John	Miner	Canadian Pacific Railway, Lethbridge.	16	Lethbridge.
Baird, Thomas	Timber Man	Canadian Pacific Railway, Lethbridge.	30	Lethbridge.
Beres, Alexander	Pipe Helper	Canadian Pacific Railway, Lethbridge.	39	Lethbridge.
Blasco, Frank	Miner	Canadian Pacific Railway, Lethbridge.	40	Lethbridge.
Coutts, George	Section Boss	Canadian Pacific Railway, Lethbridge.	12	Lethbridge.
Clark, Robert	Examiner	Canadian Pacific Railway, Lethbridge.	19	Lethbridge.
Crawford, William	Driver	Canadian Pacific Railway, Lethbridge.	24	Lethbridge.
Coutts, David	Miner	Canadian Pacific Railway, Lethbridge.	27	Lethbridge.
Chaplow, Joseph	Miner	Canadian Pacific Railway, Lethbridge.	41	Lethbridge.
Davies, David	Overman	International Coal & Coke Company, Limited.	5	Crow's Nest Pass.
Draper, Robert	Examiner	Canadian Pacific Railway, Lethbridge.	25	Lethbridge.
Goldie, William	Timber Man	Canadian Pacific Railway, Lethbridge.	31	Lethbridge.
Goldie, George	Timber Man	Canadian Pacific Railway, Lethbridge.	32	Lethbridge.
Grant, Robert	Miner	Canadian Pacific Railway, Lethbridge.	34	Lethbridge.
Grisak, John	Track Layer	Canadian Pacific Railway, Lethbridge.	35	Lethbridge.
Gallagher, Michael	Miner	Canadian Pacific Railway, Lethbridge.	46	Lethbridge.
Hargreaves, George	Cager	Canadian Pacific Railway, Lethbridge.	26	Lethbridge.
Jones, Samuel A.	Dist. Insp. of Mines	Government of Alberta	9	Lethbridge.
Kellock, George	Manager	McGillivray Creek Coal & Coke Company, Ltd.	3	Crow's Nest Pass.
Kellett, Walton	Surveyor	Canadian Pacific Railway, Lethbridge.	23	Lethbridge.
Livingstone, Robert	Manager	Canadian Pacific Railway, Lethbridge.	10	Lethbridge.
Livingstone, John	Overman	Canadian Pacific Railway, Lethbridge.	22	Lethbridge.
Larson, John	Machine Man	Canadian Pacific Railway, Lethbridge.	47	Lethbridge.
Morrison, Malcolm	Examiner	International Coal & Coke Company, Limited.	4	Crow's Nest Pass.

DEPARTMENT OF PUBLIC WORKS

MINE RESCUE CERTIFICATES ISSUED BY THE GOVERNMENT OF THE PROVINCE OF ALBERTA DURING THE YEAR 1913.—Continued.

Name.	Occupation.	Employed By	Cert. No.	Station.
Millar, Joseph.....	Section Boss	Canadian Pacific Railway, Lethbridge.....	20	Lethbridge.
Makeranko, Steven A.....	Roller Man	Canadian Pacific Railway, Lethbridge.....	36	Lethbridge.
Muir, Alexander.....	Tool Boss	Canadian Pacific Railway, Lethbridge.....	38	Lethbridge.
Moore, James.....	Examiner	Canadian Pacific Railway, Lethbridge.....	43	Lethbridge.
Millar, Andrew A.....	Mine Rescue Supt.....	Government of Alberta	50	Crow's Nest Pass.
Macaulay, Donald A.....	Surveyor	International Coal & Coke Company, Limited..	7	Crow's Nest Pass.
McGowan, James.....	Brattice Man	Canadian Pacific Railway, Lethbridge.....	15	Lethbridge.
McDonald, Duncan.....	Mine Rescue Supt.....	Government of Alberta	51	Crow's Nest Pass.
Ontko, John.....	Timber Man.....	Canadian Pacific Railway, Lethbridge.....	29	Lethbridge.
Park, William	Examiner	Canadian Pacific Railway, Lethbridge.....	18	Lethbridge.
Park, Alexander C.....	Miner	Canadian Pacific Railway, Lethbridge.....	44	Lethbridge.
Powell, William B.	Mine Rescue Supt.	Government of Alberta	49	Lethbridge.
Raber, Mike	Driver Boss	Canadian Pacific Railway, Lethbridge.....	17	Lethbridge.
Ramsay, Peter M.....	Examiner	Canadian Pacific Railway, Lethbridge.....	28	Lethbridge.
Stevenson, John.....	Overman	Canadian Pacific Railway, Lethbridge.....	11	Lethbridge.
Stevenson, Alexander.....	Pipe Fitter	Canadian Pacific Railway, Lethbridge.....	21	Lethbridge.
Steel, John W.....	Machine Man.....	Canadian Pacific Railway, Lethbridge.....	33	Lethbridge.
Stevenson, John A.....	Pump Man	Canadian Pacific Railway, Lethbridge.....	37	Lethbridge.
Seaman, John.....	Miner	Canadian Pacific Railway, Lethbridge.....	42	Lethbridge.
Thompson, Joseph	Examiner	International Coal & Coke Company, Limited..	1	Crow's Nest Pass.
Taylor, George W.....	Examiner	Canadian Pacific Railway, Lethbridge.....	45	Lethbridge.
Troman, Samuel.....	Miner	Canadian Pacific Railway, Lethbridge.....	48	Lethbridge.
Vaselenak, Mike.....	Brattice Man	Canadian Pacific Railway, Lethbridge.....	14	Lethbridge.
Watson, William.....	Overman	International Coal & Coke Company, Limited..	38	Crow's Nest Pass.
Walton, Joseph.....	Miner	Canadian Pacific Railway, Lethbridge.....	13	Lethbridge.

ACCIDENTS

There were twenty-eight fatal accidents during the past year, four of which occurred above ground and twenty-four below.

The fatal accident which occurred to Martin Turk on January 10th, in the mine operated by the Canmore Coal Company, Limited, took place while Turk was employed extracting pillars in the East Carey seam. It would appear that Turk had heard some movement of the strata above where he was working and had left his working place to investigate when a cave took place burying him.

The fatal accident which occurred to William Ross in the mine operated by the Department of Natural Resources of the Canadian Pacific Railway Company at Bankhead, was caused by a trip of cars breaking away on a surface incline. These trips are made up of five cars, and while a trip was being pushed over the incline the couplings between the third and fourth car became undone, with the result that the first three cars ran down the incline. When near the foot of the incline they became derailed and the momentum was such that on leaving the track they jumped across a barricade, which was erected at the bottom of the incline, and wrecked the end of the machine shop. Ross, who was working at one of the machines, was struck by one of the cars and instantly killed.

The fatal accident which occurred to Balla Battista in the mine operated by the Chinook Coal Company, Limited, was caused by a trip of cars becoming derailed. Battista was riding on the front car of the trip and was endeavoring to uncouple rope from the car when the car hit a point of the switch which was apparently defective and derailed it with the result that Battista was crushed between the car and the side of the road and instantly killed.

The fatal accident which occurred to Giovanni Sartorio in the mine operated by the Canadian Coal & Coke Company, Limited, was caused while Sartorio was employed at the box car loader. It appears that the deceased and his partner were engaged loading a 50 ton open steel car and when the car was about two-thirds full, they were attempting to have it lowered further down. One of the men was on the top of the car attending to the brake, while Sartorio stood on the loader with a block of wood in his hand in order to block the car when it had reached the desired position. While Sartorio was attempting to do this, the loader began to move and when endeavoring to get off the table the deceased was crushed by the loader and killed instantaneously.

The fatal accident which occurred to Robert Cullen in the mine operated by the Hillcrest Collieries, Limited, occurred while Cullen was employed in a slope which was being driven. It appears that the rope rider took three empty cars to the bottom of the slope and coupled on to them two loaded cars, after which he discovered that the drag had not been taken out of one of the loaded cars previous to its being loaded and in order to save time, proceeded to hoist the trip without any drag. It was also the duty of the miners employed at the bottom of the slope to place a stop block on the rails after a trip had passed, which in this case they neglected to do. When the trip had been hoisted a distance of 350 feet up the slope, the coupling between the second and third empty cars gave away allowing the two loaded and one empty car to

run back to the bottom of the slope injuring a man named Edmonson and instantly killing Robert Cullen. This accident would probably have been prevented if the rope rider and the other workmen had not neglected their duties.

The fatal accident which occurred to Allan Macdonald and Patrick Ryan in the mine operated by the Canadian Coal and Coke Company, Limited, occurred at the working face and appears to have been entirely unforeseen. The coal at this point is $4\frac{1}{2}$ feet thick with 1 foot of rock above it and another 8 inches of coal above that again. It is thought that the men were mining in the $4\frac{1}{2}$ foot seam of coal when a slip in the rock was encountered with the result that the roof fell on them killing them instantaneously.

The fatal accident which occurred to Edward Radford in the mine operated by the Chinook Coal Company, Limited, was caused by an explosion of gas. It appears that Radford had proceeded to his working place without ascertaining from the fire boss who had examined the place whether or not his place was safe. The fire boss stated that he found a quantity of gas in Radford's place and put a fence a considerable distance outside this place to prevent anyone inadvertently entering. If this statement is correct then Radford must have gone through the fence and entered his place with an open light, with the result that an explosion took place killing him instantly.

The fatal accident which occurred to Tom Janigo in the mine operated by the West Canadian Collieries, Limited, at Bellevue, was caused by a fall of coal while Janigo was cutting a prop preparatory to placing it near the face.

The fatal accident which occurred to Sam Popovitch in the mine operated by the Canadian Coal & Coke Co., Limited, was due to carelessness on the part of the fire boss James Carson. It appears from the evidence obtained that Carson had proceeded into Popovitch's place along with Popovitch for the purpose of firing a shot, but instead of Carson waiting to see that the wires to the shot-firing battery were properly coupled up as he should have done, he left Popovitch to do this, and a little later thinking that he heard the word "fire" he connected the battery and fired the shot. Popovitch who had apparently not left the face of the working place when the current was turned on, was instantly killed.

The fatal accident which occurred to John Stefanek in the mine operated by the Canmore Coal Company, Limited, occurred at the working face while Stefanek was mining there between two shots. While he was in the act of taking the coal off the low side he encountered the edge of a slip in the cap rock, with the result that a large piece fell out striking the deceased and killing him instantaneously.

The fatal accident which occurred to Joe Handerek and H. Krupinski in the mine operated by the Department of Natural Resources of the Canadian Pacific Railway at Bankhead, was caused by premature explosion of dynamite. The accident took place in the rock tunnel which was being driven from "B" level. It is customary in this tunnel for a round of twelve or fourteen shots to be fired at one time with nine or ten sticks of dynamite in each hole, with one detonator, and it would appear in this case that some of the dynamite had not been

exploded when the shots were fired; consequently while the deceased men were clearing away the debris from these shots one of them had apparently struck some dynamite which must have been lying amongst the rock. Both men were killed instantaneously.

The fatal accident which occurred to J. W. Mead in the mine operated by the West Canadian Collieries, Limited, at Bellevue, was caused by Mead coming in contact with one of the electric generators which was leaking badly. This leak had been known to exist for some considerable time but apparently owing to the incapability of the electrician who was in charge of the plant, it was not remedied.

The fatal accident which occurred to Pete Ondrus and Steve Ondrus in the mine operated by the Department of Natural Resources of the Canadian Pacific Railway at Bankhead, was caused while these men were engaged in repairing an old gangway in No. 1 seam. A part of this gangway had been retimbered and while the deceased were at work the timbers swung with the result that both men were buried under a heavy fall of coal and instantaneously killed.

The fatal accident which occurred to William Bain in the mine operated by the Battle River Collieries near Rosenroll, took place while Bain was engaged retimbering the shaft. A scaffolding which had been built across the shaft was insufficiently supported, with the result that when Bain stepped from the cage on to this scaffolding, it gave way causing the deceased to fall to the bottom of the shaft where he was killed.

The fatal accident which occurred to Joseph Scarritch at the mine operated by the Mountain Park Coal Company, Limited, happened in connection with shot firing. Scarritch was employed as a miner and while a shot was being fired by means of an electric battery he neglected to get sufficiently under cover, with the result that a piece of rock struck him causing instantaneous death.

The fatal accident which occurred to Charles Burns in the mine operated by the Canadian Coal & Coke Company, Limited, was the result of Burns falling down a chute. The inclination at this chute in 23 degrees and it would appear that while Burns was engaged running coal down this chute, he must have lost his balance and fallen down.

The fatal accident which occurred to Salvator Rula in the mine operated by the Canadian Coal & Coke Company, Limited, took place while Rula was engaged in putting up timbers near the coal face. While he was thus engaged a quantity of cap rock fell on him breaking his neck.

The fatal accident which occurred to Harry Holden in the mine operated by the Drumheller Coal Company, Limited, was caused as a consequence of a direct contravention of The Mines Act. It would appear from the evidence obtained that the deceased along with other two men went into the mine on the invitation of the engineer who was in charge of the plant. The engineer arranged to let them down the slope on a car but through some neglect the car was pushed over the head of the incline without the rope being coupled to it, the consequence being that Holden was killed and the two men who were along with him

were injured. These men should not have been in the mine, nor should they have been riding on mine cars without permission of the manager.

The fatal accident which occurred to Andrew McMullan in the mine operated by the Canadian Coal & Coke Company, Limited, near Coalhurst, was caused by the deceased falling in front of a trip of cars which was being hauled along a level road by means of a horse. No person saw him fall off the car and no reason can be given for the occurrence of this accident.

The fatal accident which occurred to Robert D. Thompson at the mine operated by The Canadian Coal & Coke Company, Limited, near Bickerdike was another case where the deceased met his death by falling in front of a trip of cars and as there was nothing wrong with the trip nor with the track at the time of the accident, there appears to be no reason for this accident further than that deceased had apparently tripped and fallen in front of the cars where he met his death.

The fatal accident which occurred to August Letrecher in the mine operated by The Yellowhead Pass Coal & Coke Company, Limited, near Bickerdike was caused by deceased being suffocated in a chute. Deceased had gone into No. 2 chute from the bottom to cut out a piece of timber which had stopped the coal from running. After cutting out the timber the coal started to run down and before Letrecher could escape from the chute, he was suffocated.

The fatal accident which occurred to William Arnold on December 15th in the mine operated by the Union Coal Company, Limited, near Three Hills was caused by Arnold falling down the hoisting shaft. Arnold was supposed to be acting as Overman but he had not the necessary qualifications to do so. No explanation is forthcoming as to how this accident occurred but it would appear that Arnold stepped off the cage on to the side of the shaft in order not to get wet as there was a considerable amount of water lying at the pit bottom and for some reason or other, must have fallen.

The fatal accident which occurred to Francis Rose on December 19th in the mine operated by the Hillcrest Collieries, Limited, near Hillcrest, was caused, according to the report of the District Inspector of Mines, through the negligence of the deceased to put up a sufficient amount of timber. It appears that the gangway was being widened out and four shots were fired, after which, deceased commenced to load away the coal before putting up the necessary timber.

The fatal accident which occurred to Arthur Hlopina on December 23rd in the mine operated by the Department of Natural Resources of the Canadian Pacific Railway, was, according to the report received from the District Inspector of Mines, due to the carelessness of the deceased in neglecting to use sprags while coming down a grade of $1\frac{1}{2}$ per cent. The deceased who was employed as a driver attempted to come down this grade without the sprags with the result that the cars got beyond his control and while he was attempting to hold them back he was crushed between the cars and the side of the road.

The fatal accident which occurred to John Henderson on September 29th in the mine operated by the Canadian Coal & Coke Company, Limited, at Coalhurst was caused by the horse which was pulling a trip

of cars, running away causing the car to become derailed with the result that Henderson was crushed between the car and the side of the road. His left leg was fractured and he died in the Lethbridge hospital from the result of his injuries.

There have also been fifty serious accidents below ground and nine above ground and seventy-one slight accidents below ground and thirteen above ground.

The following table gives the number of tons mined per accident in the Province from the years 1906 to 1913 inclusive:

SUMMARY TABLE SHOWING ACCIDENTS OCCURRING IN MINES DURING YEARS 1906 TO 1913 INCLUSIVE.

Year	Output	ACCIDENTS.			TONS OF COAL MINED PER ACCIDENT.		
		Fatal	Serious	Slight	Fatal	Serious	Slight
1906	1,385,000	10	11	20	138,500	125,909	69,250
1907	1,834,745	19	18	68	96,565	101,930	26,981
1908	1,845,000	11	38	13	167,727	48,552	141,923
1909	2,174,329	9	42	18	241,592	51,769	120,796
1910	3,036,757	61*	41	58	49,782*	71,067	52,357
1911	1,694,564	7	32	45	242,080	52,955	37,656
1912	3,446,349	21	38	58	164,111	90,693	59,419
1913	4,306,346	28	60	83	153,789	71,772	51,883
Total:	19,723,090	166	280	363	108,813	70,439	54,333

*Including thirty-one deaths caused by Bellevue explosion.

TABLE SHOWING ACCIDENTS DURING 1913 CLASSIFIED ACCORDING TO DISTRICTS.

DISTRICT	OUTPUT	ACCIDENTS			TONS OF COAL MINED PER ACCIDENT		
		Fatal	Seri's	Slight	Fatal	Serious	Slight
Crow's Nest Pass	1,849,435	9	20	22	205,492	92,471	84,065
Lethbridge	966,020	6	17	20	161,003	56,824	48,301
Edmonton	863,430	4	11	18	215,857	78,493	47,968
Calgary	627,461	9	11	24	69,717	57,041	26,144

TABULATED LIST OF ACCIDENTS OCCURRING IN THE PROVINCE ABOVE
AND BELOW GROUND DURING THE YEAR 1913.

CAUSE	FATAL		SERIOUS		SLIGHT		TOTAL	
	Above	Below	Above	Below	Above	Below	Above	Below
Haulage	2	6	1	14	3	15	6	35
Falls of coal	..	2	..	11	..	6	..	19
Falls of cap rock	..	3	..	6	..	8	..	17
Gas explosions	..	1	..	3	..	13	..	17
Falls of roof	..	2	..	4	..	8	..	14
Miscellaneous	..	..	5	2	3	8	8	10
Explosives	..	4	..	1	3	3	3	8
Falls of top coal	..	1	..	2	..	4	..	7
Falls of rock	..	1	..	3	..	2	..	6
Falling down chute	..	1	..	..	..	3	..	4
Fall down shaft	..	2	..	..	..	..	..	2
Machinery	..	..	2	..	4	..	6	..
Riding on loaded cars	..	..	..	2	..	..	..	2
Coal falling down chute ..	..	..	..	..	..	1	..	1
Suffocated in chute	..	1	..	..	..	..	..	1
Hoisting cage	..	..	1	1	..	..	1	1
Fall of coal down shaft ..	..	..	..	1	..	..	..	1
Electrocution	1	..	..	..	..	..	1	..
Box car loader	1	..	..	..	..	..	1	..
Total	4	24	9	50	13	71	26	145

TABLE SHOWING ACCIDENTS DURING 1913 CLASSIFIED ACCORDING TO THE MINES AT WHICH THEY OCCURRED.

Name of Operator.	ABOVE GROUND				BELOW GROUND				Total Above and Below Ground	
	Fatal		Seris's Slight		Fatal		Seris's Slight		Total	Total
	1	2	3	4	5	6	7	8		
Dept. Nat. Resources Can. Pacific Railway Co., Bankhead	1								1	18
Canadian Pacific Railway Company, Lethbridge									9	20
West Canadian Collieries, Limited (Bellevue)	1	1							2	15
The Canmore Coal Company, Limited		1							3	11
Twin City Coal Company, Limited		1		2					3	7
Chinook Coal Company, Limited									3	9
Canadian Coal & Coke Company, Limited (Beaver Mines)	1								4	6
McGillivray Creek Coal & Coke Company, Limited		1		1					2	5
The Great West Coal Company, Limited		1							1	5
West Canadian Collieries, Limited (Blairmore)									2	6
The Canada West Coal Company, Limited									3	5
International Coal & Coke Company, Limited									3	5
Canadian Coal & Coke Company, Limited (Lethbridge Coll.)									2	4
Hillcrest Collieries, Limited									2	4
The Pembina Coal Company, Limited				1					1	3
The Cardiff Collieries, Limited		1							1	2
The Drumheller Coal Company, Limited									1	3
Davenport Coal Company, Limited				1					1	2
Yellowhead Pass Coal & Coke Company, Limited		1							1	2
The Georgetown Collieries, Limited									1	2
Diamond Coal Company, Limited				1					1	1
Alberta Coal Mining Company									1	1
Battle River Collieries									1	1
Humberstone Coal Company									1	1
Independent Coal Company									1	1
C. K. James				1					1	1
Jasper Park Collieries, Limited									1	1
Leitch Collieries, Limited				1					1	1
F. R. Mason									1	1
Mountain Park Coal Company, Limited									1	1
W. H. McIntyre				1					1	1
Canadian Coal & Coke Company, Limited (Fergie)	1								1	1
Edmonton Standard Coal Company, Ltd.									1	1
Union Coal Company, Limited									1	1
Total	4	9	13	26	24	50	71	145	171	

The following table gives the classification of accidents according to the district in which they occurred:

CROW'S NEST PASS.

CAUSE	FATAL		SERIOUS		SLIGHT	
	Above	Below	Above	Below	Above	Below
Haulage	..	1	..	5	3	1
Falls of coal	..	..	..	6	..	4
Falls of cap rock	..	2	..	4	..	4
Falls of roof	..	1	..	..	..	1
Miscellaneous	..	..	2	..	..	3
Explosives	..	..	..	..	..	1
Falls of top coal	..	1	..	2	..	3
Falls of rock	..	1	..	1	..	..
Falling down chute	..	1	..	..	..	1
Coal falling down chute	..	..	..	..	..	1
Electrocution	1	..	..	..	..	..
Box car loader	1	..	..	..	..	..
Total	2	7	2	18	3	19

CALGARY.

CAUSE	FATAL		SERIOUS		SLIGHT	
	Above	Below	Above	Below	Above	Below
Haulage	1	1	..	3	..	4
Falls of coal	..	2	..	1	..	2
Falls of cap rock	..	1	..	1	..	4
Falls of roof	..	1	..	..	..	3
Miscellaneous	..	..	2	1	1	3
Explosives	..	2	..	..	2	1
Falls of rock	..	..	..	1	..	1
Falling down chute	..	..	..	..	..	2
Fall down shaft	..	1	..	..	..	..
Machinery	..	..	1	..	2	..
Riding on loaded cars	..	..	..	1	..	..
Total	1	8	3	8	5	20

LETHBRIDGE.

CAUSE	FATAL		SERIOUS		SLIGHT	
	Above	Below	Above	Below	Above	Below
Haulage	..	4	..	5	..	6
Falls of coal	..	..	..	2	..	..
Falls of cap rock	..	..	..	1	..	..
Gas explosions	..	1	..	1	..	9
Falls of roof	..	..	..	3	..	1
Miscellaneous	..	..	..	1	..	..
Explosives	..	1	..	1	1	..
Fall of top coal	..	..	..	..	..	1
Falls of rock	..	..	..	1	..	..
Machinery	..	..	..	..	1	..
Riding on loaded cars	..	..	..	1	..	..
Fall of coal down shaft	..	..	..	1	..	..
Total	..	6	..	17	2	17

EDMONTON.

CAUSE	FATAL		SERIOUS		SLIGHT	
	Above	Below	Above	Below	Above	Below
Haulage	1	..	1	1	..	4
Falls of coal	..	..	..	2	..	..
Gas explosions	..	..	..	2	..	4
Falls of roof	..	..	..	1	..	3
Miscellaneous	..	..	1	..	2	2
Explosives	..	1	..	..	..	1
Falls of rock	..	..	..	..	..	1
Machinery	..	..	1	..	1	..
Fall down shaft	..	1	..	..	..	..
Suffocated in chute	..	1	..	..	..	..
Hoisting cage	..	..	1	1	..	..
Total	1	3	4	7	3	15

ACCIDENTS FROM EXPLOSIONS OF FIRE-DAMP OR COAL DUST CLASSIFIED
ACCORDING TO CAUSE.

Cause of Explosion	Fatal Accidents		Non-Fatal Accidents Reported to Inspectors	
	Number of separate accidents	Number of deaths	Number of separate accidents	Number of persons injured
Naked lights	1	1	10	16

ACCIDENTS WITH EXPLOSIVES CLASSIFIED ACCORDING TO THE NATURE
OF THE EXPLOSIVE.

Name of Explosive	Fatal Accidents		Non-Fatal Accidents Reported to Inspectors	
	Number of separate accidents	Number of deaths	Number of separate accidents	Number of persons injured
Black powder	..	..	2	2
Dynamite	1	2	1	1
Samsonite	..	..	1	1
Monobel	2	2	2	2
Detonators	..	..	1	1
Total	3	4	7	7

ACCIDENTS WITH EXPLOSIVES CLASSIFIED ACCORDING TO THEIR
CHARACTER OR CAUSE.

Character or Cause	Fatal Accidents		Non-Fatal Accidents Reported to Inspectors	
	Number of separate accidents	Number of deaths	Number of separate accidents	Number of persons injured
Loose powder ignited by lamp	..	..	2	2
Struck by coal from shot. While working near an un- exploded remnant left by incomplete detona- tion of the charge.....	1	1	..	..
Premature ignition	2	3	2	2
Total	3	4	7	7

HAULAGE ACCIDENTS.

Nature of Accident	Fatal Accidents		Non-Fatal Accidents Reported to Inspectors	
	Number of separate accidents	Number of deaths	Number of separate accidents	Number of persons injured
While engaged on haulage operations	5	5	25	25
While going to or from work			2	2
While riding on cars in contravention of Mines Act	1	1	3	3
Runaway cars on sinking slope	1	1	1	1
Runaway cars on selfacting incline	1	1		
Miscellaneous			2	2
Total	8	8	33	33

ACCIDENTS CAUSED BY PERSONS BEING RUN OVER OR CRUSHED BY CARS.

Nature of Accident	Fatal Accidents		Non-Fatal Accidents Reported to Inspectors	
	Number of separate accidents	Number of deaths	Number of separate accidents	Number of persons injured
Tail rope haulage	3	3	6	6
Endless rope haulage.....			2	2
Compressed air locomotives			5	5
Self-acting inclines	1	1		
Endless chain			1	1
Horse haulage.....	4	4	12	12
Hand haulage			7	7
Total	8	8	33	33

LIST OF ACCIDENTS WHICH HAVE OCCURRED DURING 1913.

DATE	MINE	NAME	AGE	OCCUPATION	REMARKS
Jan. 9	The Canmore Coal Company, Limited.	Martin Turk	50	Miner	Fall of roof at working face. Fatal.
Jan. 11	Diamond Coal Company, Limited.	Seline Davy	39	Fireman	Fingers caught in machinery while lubricating stoker. Left forefinger amputated.
Jan. 15	Natural Resources Department. (C.P.R. Bankhead)	William Ross	27	Plumber	Struck by runaway cars on incline. Fatal.
Jan. 15	(C.P.R. No. 3 Shaft, Lethbridge)	Joe Wolgs	37	Cager	Struck by piece of coal falling down shaft. Forearm fractured.
Jan. 15	The Great West Coal Co., Limited.	John Russell	36	Pit Boss	Lowering empty car from tippie to slack pile when his foot slipped.
Jan. 16	Natural Resources Department. (C.P.R. No. 6 Shaft, Lethbridge)	Albert Cozias	40	Loader	Left wrist fractured. Burned by explosion of gas in room which was fenced off. Face and hands burned.
Jan. 21	Diamond Coal Company, Ltd.	G. Nicholson	23	Loader	Pushing car in room when his fingers were crushed between car and timber.
Jan. 24	Natural Resources Department. (C.P.R. No. 6 Shaft, Lethbridge)	Mike Adam	26	Loader	Fingers bruised. Fall of rock at working face. Left leg fractured.
Jan. 28	(C.P.R. No. 6 Shaft, Lethbridge)	Steve A. McKarenko	26	Roller	Foot crushed while coupling empty cars. Fractured bone.
Jan. 31	Upper Park Collieries, Ltd.	Ben Chase	41	Miner	Fall of coal at working face. Fractured leg.
Feb. 6	(C.P.R. No. 6 Shaft, Lethbridge)	Bill Trehub	29	Timberman's helper	Explosion of gas in room. Hands and neck burned.
Feb. 6	(C.P.R. No. 6 Shaft, Lethbridge)	Sam Mihaluk	28	Timberman's helper	Explosion of gas in room. Hands and neck burned.
Feb. 7	West Canadian Collieries, Ltd. (Bellevue)	John B. Allenby	28	Miner	Fall of top coal. Fracture of collar bone.
Feb. 7	Yellowhead Pass Coal & Coke Co., Ltd.	W. R. McCardia	57	Sawyer	Arm caught while changing feed belt of saw. Fractured arm.
Feb. 10	Davenport Coal Co.	J. S. Adams	22	Miner	Fall of cap rock. Back bruised.

DATE	MINE	NAME	AGE	OCCUPATION	REMARKS
Feb. 10	Chinook Coal Co., Ltd.	Balla Battista	31	Rustler	Crushed between car and side of road by derailed car. Fatal.
Feb. 13	The Canmore Coal Co., Ltd.	Joseph Stanko	29	Driver	Crushed between bumpers of cars. Body slightly bruised.
Feb. 15	Natural Resources Department. C.P.R. Bankhead	John Polak	18	Backhand	Fall of coal down chute. Thumb amputated.
Feb. 18	Davenport Coal Co.	J. Cantaline	28	Blacksmith	While attempting to detach a car from trip, fell in front of car. Bone in left hand fractured.
Feb. 19	Natural Resources Department. (C.P.R. Bankhead)	J. Zotkowski	21	Switchman	Crushed between motor and side of road. Hips and back squeezed.
Mar. 3	West Canadian Collieries, Ltd. (Blairmore)	D. Mezen	36	Miner	Coal fell while being mined. Hips and abdomen crushed.
Mar. 5	Twin City Coal Co., Ltd.	Tom Lloyd	27	Miner	Hand cut while using axe.
Mar. 10	Great West Coal Co., Ltd.	David Hunter	23	Miner	Explosion of gas in working place. Arm and face slightly burned.
Mar. 10	Davenport Coal Co.	H. Yearby	23	Driver	Fell from car while driving trip. Lower end of spine injured.
Mar. 15	The Canmore Coal Co., Ltd.	Joe Verdesio	27	Miner	Struck by coal and knocked down chute. Fracture of right ankle.
Mar. 16	The Canada West Coal Co., Ltd.	James Bateman	45	Loader	Timber knocked out. Ribs broken.
Mar. 17	Canadian Coal & Coke Co., Ltd.	Giovanni Santorio	35	Laborer	Crushed by box car loader. Fatal.
Mar. 19	Natural Resources Department. (C.P.R. Bankhead)	Ju Jin	48	Chinese Boss	Fell from top floor of breaker. Base of skull fractured.
Mar. 21	(C.P.R. Bankhead)	Joe Slappett	23	Timber Packer	Struck by fallen timber. End of finger amputated.
Mar. 24	F. R. Mason	James Wilson	36	Miner	Fall of roof. Back sprained.
Mar. 24	Natural Resources Department. (C.P.R. Bankhead)	Mike Becks	27	Miner	Premature explosion of Monobel powder. Face and hands slightly wounded.

DATE	MINE	NAME	AGE	OCCUPATION	REMARKS
Mar. 27	Twin City Coal Co., Ltd.	Otto Coperson	24	Driver	Fell in front of trip while jumping off cars when in motion. Right ankle bruised.
Apr. 1	Chinook Coal Co., Ltd.	W. R. Hughes	25	Miner	Horse started while car was derailed. Fractured leg.
Apr. 1	Natural Resources Department. (C.P.R. Bankhead)	Robert Barclay	21	Timber Packer	Fall of cap rock. Bruised knee.
Apr. 3	(C.P.R. Bankhead)	P. Williams	49	Miner	Fall of rock. Small bone in foot broken.
Apr. 7	The Canada West Coal Co., Ltd.	T. Bateman	27	Sloperman	Fingers crushed while repairing creeper chain. Second finger left hand amputated.
Apr. 8	Natural Resources Department. (C.P.R. No. 6 Shaft, Lethbridge)	Alexander Wolpon	22	Scraper	Explosion of gas. Hands and face burned.
Apr. 8	(C.P.R. No. 6 Shaft, Lethbridge)	John Moskoluk	28	Machineman	Explosion of gas. Hands and face burned.
Apr. 8	Hillcrest Collieries, Ltd.	Robert Cullan	48	Miner	Runaway trip on incline. Fatal.
Apr. 8	Hillcrest Collieries, Ltd.	John Edmonson	41	Miner	Runaway trip on incline. Fractured ribs.
Apr. 10	Twin City Coal Co., Ltd.	Otto Poushak	24	Miner	Fall of rock. Forehead cut.
Apr. 11	Natural Resources Department. (C.P.R. Bankhead)	H. Maneglia	33	Miner	Fall of rock. Foot injured.
Apr. 11	(C.P.R. No. 6 Shaft, Lethbridge)	Steve Pinchak	22	Car Pusher	Foot crushed by car.
Apr. 11	Canadian Coal & Coke Co., Ltd.	Mick Bitinivitch	39	Miner	Fall of rock. Third finger amputated.
Apr. 12	The Canmore Coal Co., Ltd.	Matt Stone	27	Miner	Fall of coal and rock. Left ankle sprained.
Apr. 15	West Canadian Collieries, Ltd. (Blairmore)	Camille Gillard	43	Miner	Fell while putting up prop. Wrist broken.
Apr. 17	Natural Resources Department. (C.P.R. No. 6 Shaft, Lethbridge)	Mike Chollok	18	Driver	Arm caught between side of car and prop. Right arm broken.
Apr. 17	(C.P.R. No. 6 Shaft, Lethbridge)	Andres Beres	19	Scraper	Ignition of gas in working place. Face and hands burned.
Apr. 17	(C.P.R. No. 6 Shaft, Lethbridge)	John Skiba	34	Machineman	Ignition of gas in working place. Ears burned.

DATE	MINE	NAME	AGE	OCCUPATION	REMARKS
Apr. 18	(C.P.R. Bankhead)	U. Riva	26	Backhand	Fall of cap rock. Slight injury to shoulder and hip.
Apr. 18	West Canadian Collieries, Ltd. (Bellevue)	A. Anderson	28	Miner	Fall of coal at face. Left leg fractured.
Apr. 19	Canadian Coal & Coke Co., Ltd.	Allan Macdonald	43	Miner	Fall of cap rock. Fatal.
Apr. 19	Canadian Coal & Coke Co., Ltd.	Patrick Ryan	32	Miner	Fall of cap rock. Fatal.
Apr. 21	Chinook Coal Co., Ltd.	George Montenko	21	Pusher	Ignition of gas in entry. Left rib fractured.
Apr. 21	Chinook Coal Co., Ltd.	Nick Miller	23	Loader	Ignition of gas in entry. Head and face burned.
Apr. 21	Chinook Coal Co., Ltd.	John Flasko	40	Loader	Ignition of gas in entry. Head and hands burned.
Apr. 21	Chinook Coal Co., Ltd.	Edward Radford	28	Machine runner	Ignition of gas in entry. Fatal.
Apr. 22	Independent Coal Co., Ltd.	Alexander McLuckie	51	Miner	Fall of rock at working place. Back crushed.
Apr. 22	Natural Resources Department. (C.P.R. Bankhead)	L. Jagosz	22	Laborer	Premature ignition of dynamite. Face and eyes injured slightly.
Apr. 22	West Canadian Collieries, Ltd. (Blairmore)	Walter Croley	37	Miner	Premature explosion of Samsonite. Face and eye injured.
May 6	The Leitch Collieries, Ltd.	Richard Wright	32	Rope Rider	Fell off moving car. Jaw fractured.
May 8	Chinook Coal Co., Ltd.	Robert Ramsay	35	Timberman	Fall of coal. Left leg fractured.
May 9	Natural Resources Department. (C.P.R. Bankhead)	Joe Dutka	20	Switchman	Crushed between locomotive and timber. Left arm broken.
May 9	Alberta Coal Mining Co., Ltd.	Fred Ben	24	Driver	Fell off car. Ankle sprained.
May 12	The Canmore Coal Company, Ltd.	John Meres	27	Laborer	Fall of roof. Bruised back.
May 14	Natural Resources Department. (C.P.R. Bankhead)	R. Adams	28	Miner	Fall of cap rock. Leg bruised.
May 15	West Canadian Collieries, Ltd. (Bellevue)	Tom Janigo	26	Miner	Fall of top coal. Fatal.
May 20	Canadian Coal & Coke Co., Ltd.	Sam Popovitch	36	Loader	Premature explosion of powder. Fatal.
May 20	International Coal & Coke Co., Ltd.	I. Quintile	19	Chute Loader	Struck by horse. Ankle broken.
May 21	West Canadian Collieries, Ltd. (Bellevue)	M. Barveglione	30	Miner	Fall of cap rock. Hips bruised.
May 23	Twin City Coal Co., Ltd.	George Topham	29	Repairer	Fall of rock. Leg fractured.

DATE	MINE	NAME	AGE	OCCUPATION	REMARKS
May 26	International Coal & Coke Co., Ltd.	Albert Balsel	45	Miner	Fall of cap rock. Back injured.
May 30	McGillivray Creek Coal & Coke Co., Ltd.	Joseph Pool	38	Miner	Fall of top coal. Bruised head and chest.
May 31	The Canmore Coal Co., Ltd.	Wal. Woosick	28	Laborer	Fall of niggerhead. Left leg fractured.
June 8	The Canmore Coal Co., Ltd.	Lee Hook	34	Rock Picker	Injured while unloading engine. Right arm fractured.
June 9	Twin City Coal Co., Ltd.	G. D. Watson	29	Driver	Fall of rock. Back bruised.
June 16	The Pembina Coal Co., Ltd.	Frank Boucheck	35	Loader	Foot struck by pick. Left foot injured.
June 18	The Canmore Coal Co., Ltd.	John Stefanek	29	Miner	Fall of cap rock. Fatal.
June 20	The Great West Coal Co., Ltd.	George Brown	24	Brusher	Ignition of gas. Hands and neck burned.
June 20	The McGillivray Creek Coal & Coke Co.	Samuel Stokes	48	Surface Laborer	Fall of gravel and rock. Compound fracture of right leg.
June 25	Canadian Coal & Coke Co., Ltd.	Jacob Liebargall	42	Miner	Fell down chute. Back bruised.
June 26	Natural Resources Department (C.P.R. Bankhead)	H. Krupinski	27	Checker	Premature explosion of dynamite. Fatal.
June 26	(C.P.R. Bankhead)	Joe Handerek	22	Mucker	Premature explosion of dynamite. Fatal.
June 26	West Canadian Collieries, Ltd. (Bellevue)	J. W. Mead	39	Engineer	Electrocuted by generator leaking. Fatal.
June 28	Chinook Coal Co., Ltd.	Andrew Kovich	30	Driver	Caught between car and tail chain. Right leg fractured.
July 3	McGillivray Creek Coal & Coke Co., Ltd.	Alfred Dalesse	35	Miner	Fall of coal. Right leg fractured.
July 4	Natural Resources Department (C.P.R. Bankhead)	H. Krich	38	Miner	Fall of cap rock. Right arm fractured.
July 8	(C.P.R. Bankhead)	Pete Ondrus	22	Miner's laborer	Fall of coal. Fatal.
July 8	Natural Resources Department (C.P.R. Bankhead)	Steve Ondrus	29	Miner	Fall of coal. Fatal.
July 8	The Canmore Coal Co., Ltd.	Mike Ambros	32	Switchman	Fell down chute. Head lacerated.
July 9	Battle River Collieries, Ltd.	William Bai	25	Miner	Fell off scaffold while repairing shaft. Fatal.
July 9	The Canmore Coal Co., Ltd.	Tom Lieskovsky	22	Miner	Fall of top. Left leg fractured.

DATE	MINE	NAME	AGE	OCCUPATION	REMARKS
July 13	Twin City Coal Co., Ltd.	O. G. Windsor	26	Mechanic	Ignition of gas. Neck and face burned.
July 13	Twin City Coal Co., Ltd.	J. T. Lain	24	Engineer	Ignition of gas. Neck and face burned.
July 14	Natural Resources Department (C.P.R. No. 6 Shaft, Lethbridge)	Paul Legerski	41	Machine runner	Fall of roof. Right leg fractured.
July 16	(C.P.R. Bankhead)	A. Pinna	34	Miner	Struck by axe while cutting timber. Leg injured.
July 22	(C.P.R. Bankhead)	H. Brandalise	28	Undergr'd laborer	Fell off ladder. Thumb dislocated.
July 22	Canadian Coal & Coke Co., Ltd.	John A. Digman	27	Fire boss	Premature explosion of shot. Loss of right eye and left eye injured.
July 23	Natural Resources Department (C.P.R. Bankhead)	D. Heberton	22	Teamster	Back bruised while unloading rails.
July 23	Pembina Coal Co., Ltd.	Louis Pemmerl	35	Timberman	Fall of roof. Right eye cut.
July 23	C. K. James	W. J. Davis	38	Miner	Premature ignition of black powder.
July 24	Natural Resources Department (C.P.R. Bankhead)	Alexander Hall	49	Powerhouse wiper	Face and hand burned Caught by connecting rod of air compressor. Arm bruised.
July 24	West Canadian Collieries, Ltd. (Bellevue)	Frank Speraski	25	Miner	Fall of coal. Leg fractured.
July 28	West Canadian Collieries, Ltd. (Blairmore)	John Bouchmere	40	Miner	Fall of cap rock. Concussion of back.
July 29	The Mountain Park Coal Co., Ltd.	Joseph Scarrich	25	Miner	Struck by flying rock from shot. Fatal.
Aug. 5	The Georgetown Collieries, Ltd.	William Bachello	20	Trackman	Struck by fallen timber. Knee bruised.
Aug. 7	West Canadian Collieries, Ltd. (Blairmore)	B. Lambert	26	Miner	Fall of coal. Shoulder dislocated.
Aug. 9	Canadian Coal & Coke Co., Ltd.	Charles Burns	46	Laborer	Fell down chute Fatal.
Aug. 20	Canadian Coal & Coke Co., Ltd.	Frank Krechel	36	Cager	Caught by cage. Right leg amputated.
Aug. 21	The Cardiff Collieries, Ltd.	John Rootson	22	Miner	While lifting car it fell on him. Left arm fractured.
Aug. 22	Canadian Coal & Coke Co., Ltd. Natural Resources Department	Salvator Rula	30	Miner	Fall of rock. Fatal.
Aug. 23	(C.P.R. Bankhead)	James Anderson	17	Machinshop boy	Struck by flying piece of steel. Eye-lid cut.
Sept. 4	West Canadian Collieries, Ltd. (Blairmore)	M. Putick	32	Miner	Cave of rock and cap rock. Legs bruised.
Sept. 7	Drumheller Coal Co., Ltd.	Harry Holden		Not employed	Riding on mine car on slope when car became uncoupled from rope and ran down incline. Fat.

DATE	MINE	NAME	AGE	OCCUPATION	REMARKS
Sept. 7	Drumheller Coal Co., Ltd.	Harry Wheatcroft		Not employed	Riding on mine car on slope when car became uncoupled from rope and ran down incline. Internal injuries
Sept. 10	West Canadian Collieries, Ltd. (Bellevue)	Dan Ross	38	Miner	Fall of coal while setting prop. Right leg fractured.
Sept. 15	West Canadian Collieries, Ltd. (Bellevue)	Emil Wilan	37	Miner	Fall of coal. Heel crushed.
Sept. 22	Natural Resources Department (C.P.R. Lethbridge)	Metro. Galoway	35	Loader	Fall of slate. Bruised back.
Sept. 23	McGillivray Creek Coal & Coke Co., Ltd.	Silas Hill	32	Miner	Fall of cap rock. Compound fracture of left leg.
Sept. 24	Twin City Coal Co., Ltd.	E. Rudolfe	28	Mechanic	Finger caught in crank pit of air compressor.
Sept. 25	The Pembina Coal Co., Ltd.	J. Schulder	32	Laborer	Injured while unloading rails from railway car. Left foot cut.
Sept. 29	Canadian Coal & Coke Co., Ltd.	John Henderson	26	Driver	Caught between car and timber. Compound fracture of left leg. Fatal.
Sept. 29	Canadian Coal & Coke Co., Ltd.	Peter Melling	41	Examiner	Caught between car and timber. Shoulder dislocated.
Oct. 4	West Canadian Collieries, Ltd. (Bellevue)	Peter Patterson	45	Miner	Fall of coal from side of pillar. Shoulders and neck bruised.
Oct. 6	West Canadian Collieries, Ltd. (Bellevue)	Joseph Riddle	23	Tracklayer	Unloading rails. Finger crushed.
Oct. 6	The Cardiff Collieries, Ltd.	Joe Bruno	25	Driver	Car derailed while attempting to uncouple tail chain. Left kidney and bladder injured.
Oct. 8	West Canadian Collieries, Ltd. (Bellevue)	G. Constant	24	Miner	Fall of top coal. Fingers crushed.
Oct. 9	Twin City Coal Co. Ltd.	A. Gahn	19	Oiler	Fell off cage. Ribs fractured.
Oct. 10	Canadian Coal & Coke Co., Ltd.	Andrew McMullan	23	Driver	Fell in front of trip of cars while driving. Fatal.
Oct. 16	West Canadian Collieries, Ltd. (Bellevue)	M. Bovio	40	Miner	Fall of coal. Back injured.
Oct. 24	Canadian Coal & Coke Co., Ltd.	Robert D. Thompson	27	Rope runner	Fell in front of trip while passing over trestle. Fatal.
Oct. 27	West Canadian Collieries, Ltd. (Bellevue)	Mike Saboda	30	Trammer	Caught between car and timbers. Finger crushed.
Oct. 27	International Coal & Coke Co. Ltd.	John Jones	35	Miner	Fall of cap rock. Right leg injured.
Oct. 30	The Canmore Coal Company, Ltd.	John Renschuk	29	Driver	Caught between car and low side of gangway. Back and chest bruised.

DATE	MINE	NAME	AGE	OCCUPATION	REMARKS
Oct. 30	Drumheller Coal Co., Ltd.	George Urichuk	28	Miner	Injured by derailed car. Foot injured.
Nov. 4	McGillivray Creek Coal & Coke Co., Ltd.	John Beveridge	32	Miner	Fall of coal while engaged undercutting. Body bruised.
Nov. 5	The Canada West Coal Co., Ltd.	Wm. Driborough	48	Miner	Caught between car and roof. Fingers amputated.
Nov. 5	West Canadian Collieries, Ltd. (Bellevue)	James Cardle	32	Miner	Fall of top coal. Two ribs fractured.
Nov. 6	International Coal & Coke Co., Ltd.	Louis Denotaris	42	Miner	Struck on head by safety lamp. Head cut.
Nov. 9	William H. McIntyre	Toni Chernow	34	Miner	Explosion of detonating caps. Face cut.
Nov. 10	Hilcrest Collieries, Ltd.	Deo Thomas	28	Driver boss	Crushed by derailed car against a prop. Skull fractured.
Nov. 11	West Canadian Collieries, Ltd. (Bellevue)	Geo. Brown	40	Carpenters' helper	Fell from trestle on surface. Right foot fractured.
Nov. 12	West Canadian Collieries, Ltd. (Blairmore)	J. Lavia	23	Miner	Fall of top coal. Back bruised.
Nov. 15	Natural Resources Department (C.P.R. Lethbridge)	John Cinkovitch	26	Scraper	Fall of coal. Right leg fractured.
Nov. 16	(C.P.R. Lethbridge)	V. Szakecs	24	Driver	Leg caught between tail chain and bumper of car. Right ankle injured.
Nov. 18	The Canada West Coal Co., Ltd.	J. K. Lyons	29	Machine man	Fall of rock while operating machine. Back probably broken.
Nov. 19	McGillivray Creek Coal & Coke Co., Ltd.	Nat. Adge	28	Miner	Fall of rock while setting prop. Scalp wound.
Nov. 20	The Yellowhead Pass Coal & Coke Co., Ltd.	August Letrecher	40	Miner	While cutting lagging out of chute coal began to run and suffocated him. Fatal.
Nov. 25	Natural Resources Department (C.P.R. Lethbridge)	Joseph Chaplow	38	Loader	Struck by horse while standing at side of road. Collar bone fractured.
Nov. 26	McGillivray Creek Coal & Coke Co., Ltd.	George Nassino	36	Laborer	Fell from top of trestle. Left wrist fractured.
Nov. 26	The Georgetown Collieries, Ltd.	William Bachello	20	Trackman's helper	Caught between car and roof while riding on car in contravention of Mines Act. Spine injured.
Nov. 26	The Great West Coal Co., Ltd.	George Reeves	42	Driver	Caught between cars and side of road. Body severely crushed.
Dec. 2	Canada West Coal Co., Ltd.	J. McDougall	34	Loader	Fall of shale. Ribs fractured.

DATE	MINE	NAME	AGE	OCCUPATION	REMARKS
Dec. 7	Natural Resources Department. (C.P.R. Bankhead)	Mike Salvaggi	34	Fireman	Caught on belt while screwing down grease cup on pump. Left arm fractured.
Dec. 9	The Great West Coal, Ltd.	Harry Brown	19	Car pusher	Ignited accumulation of gas. Slightly burned.
Dec. 9	The Great West Coal, Ltd.	James Paoul	23	Miner	Ignited accumulation of gas. Slightly burned.
Dec. 11	Natural Resources Department. (C.P.R. Lethbridge)	John Finney	65	Loader	Riding on trip of loaded cars in contravention of Mines Act. Leg fractured.
Dec. 13	International Coal & Coke Co., Ltd.	J. Beigen	39	Timber packer	Fall of rock. Right leg fractured.
Dec. 13	The Pembina Coal Co., Ltd.	F. Luzzi	38	Loader	While attempting to open door of car, was crushed. Back crushed.
Dec. 15	Natural Resources Department. (C.P.R. Lethbridge)	George Grisack	32	Loader	Fall of roof while loading car. Foot crushed.
Dec. 15	Union Coal Co., Ltd.	William Arnold	33	Foreman	Fell down shaft. Fatal.
Dec. 17	The Canmore Coal Co., Ltd.	Louis Morat	31	Miner	Fall of roof. Back bruised.
Dec. 17	West Canadian Collieries, Ltd. (Bellevue)	Mike Zahara	20	Loader	While coupling cars was caught between bumpers. Left leg fractured.
Dec. 19	Hillcrest Collieries, Ltd.	Francis Rose	30	Miner	Fall of roof. Fatal.
Dec. 22	The Yellowhead Pass Coal & Coke Co., Ltd.	Nick Pyson	26	Miner	Fall of coal. Spinal column bruised.
Dec. 23	Natural Resources Department. (C.P.R. Lethbridge)	Arthur Hlopina	26	Driver	Crushed by cars getting beyond control owing to failure to use sprags. Fatal.
Dec. 26	West Canadian Collieries, Ltd. (Bellevue)	V. Vlčik	40	Miner	Fall of coal down chute. Two ribs fractured.
Dec. 27	Natural Resources Department. (C.P.R. Bankhead)	John Gorny	21	Loader	Crushed between cars and chute. Head slightly cut.
Dec. 27	Twin City Coal Co., Ltd.	M. Pinkiola	33	Laborer	Fall of coal on tippie. First finger broken.
Dec. 30	Edmonton Standard Coal Co., Ltd.	William Pagoda	32	Miner	Premature ignition of black powder. Hands and face slightly burned.
Dec. 31	The Humberstone Coal Company	Edward Williams	35	Miner	Fall of roof. Dislocated ankle.

CLASSIFICATION OF ACCIDENTS ACCORDING TO OUTPUTS OF MINES
WHICH PRODUCED DURING 1913.

	Under 50,000 tons	From 50,000 to 100,000 tons	From 100,000 to 200,000 tons	From 200,000 to 300,000 tons	From 300,000 to 400,000 tons	From 400,000 to 500,000 tons	Total
Fatal	6	7	8	2	2	3	28
Serious ...	5	10	18	4	2	20	59
Slight	13	19	27	6		19	84
Total ..	24	36	53	12	4	42	171

EXAMINATIONS.

Examinations for mine managers, pit bosses and fire bosses were held at Frank, Banff and Edmonton on May 20th, 21st and 22nd.

Eighty-nine candidates made application to sit at these examinations, forty of whom passed as follows: Managers, 26 sat for examination, 6 passed; pit bosses, 33 sat for examination, 19 passed; fire bosses, 30 sat for examination, 15 passed.

One hundred and fifty-one persons hold final certificates qualifying them to act as mine managers; 172 hold final certificates qualifying them to act as overmen and 302 hold final certificates qualifying them to act as examiners and shot-lighters in the Province.

The Mines Act which came into force on the first day of August made provision for First, Second and Third class certificates respectively being granted to mine managers, overmen and examiners, overmen taking the place of pit bosses and examiners taking the place of fire bosses under the Coal Mines Act. Provision is also made in this Act for the examination for Third class certificates being entirely oral and in accordance with this provision, examinations were held at Edmonton on October 9th and at Frank on November 13th.

At the examination held at Edmonton, 5 candidates made application for examination, three of whom passed.

At the examination held at Frank, 12 candidates made application for examination, 5 of whom passed, 3 of whom failed and 4 of whom were disqualified as they were unable to produce to the Board a certificate from a duly qualified medical practitioner or from a recognized ambulance society stating that they had taken a course in ambulance work fitting them to give First Aid to the persons injured in or about a mine.

No examinations have been held for First and Second class certificates under The Mines Act.

The Province has been divided into six districts in accordance with Sections 16 and 17 of The Mines Act for the purpose of holding examinations and a board appointed for each district. This Board is composed

of a manager and a working miner appointed by the Lieutenant Governor in Council and a District Inspector appointed by the Chief Inspector.

The following list gives the names of the members of the Board for each District in the Province:

EDMONTON

Alex. C. Dunn.....	Manager
David Astley.....	Miner
Elijah Heathcote.....	District Inspector

CALGARY

John Watters.....	Manager
Alex. Anderson.....	Miner
Francis Aspinall.....	District Inspector

LETHBRIDGE

Robert Livingstone.....	Manager
James Lindsay.....	Miner
Samuel A. Jones.....	District Inspector

CROW'S NEST PASS

W. A. Davidson.....	Manager
Fred Allott.....	Miner
Andrew N. Scott.....	District Inspector

YELLOWHEAD PASS

Thomas Mather.....	Manager
William Kenyon.....	Miner
Elijah Heathcote.....	District Inspector

JASPER PARK

Edwin Sparrow.....	Manager
David Stene.....	Miner
Elijah Heathcote.....	District Inspector

No definite date has been fixed for the holding of examinations for First and Second class certificates but it is proposed to hold them once each year, probably in the month of June.

Examinations for Third class certificates will be held at Frank during the months of May and November; at Lethbridge during the months of February and August; at Bankhead during the month of March; at Canmore during the month of September; at Edmonton during the month of October; at Coalspur during the month of June, and at Pocahtontas during the month of April.

In order to save confusion these examinations will always be held on the second Thursday of the month.

Mr. Norman Fraser and Mr. Robert G. Drinnan have been nominated by the minister to set, prescribe and examine all examination papers for First and Second class certificates in accordance with Section 21 of The Mines Act.

During the year 37 pit boss provisional certificates and 5 fire boss provisional certificates were issued under the Coal Mines Act to different persons and 69 provisional overmen's certificates were issued to

different persons under The Mines Act until they had an opportunity of obtaining certificates by examination.

I am pleased to report that the question of a sufficient number of persons holding Third class certificates seems to have been satisfactorily settled, as no provisional certificates are now being issued authorizing any person to act as an examiner at any mine in the province.

The following are the questions set at the examinations held at Frank, Banff and Edmonton on May 20th, 21st and 22nd—under The Coal Mines Act.

MINE MANAGERS' EXAMINATION.

Candidates must obtain 70% of the allotted marks to pass.

Paper No. 1

Time—One and a half hours.

COAL MINES ACT.

1. What are the provisions of the Coal Mines Act regarding shafts or outlets? (10)
2. What are the provisions of the Coal Mines Act respecting abandoned mines? (10)
3. What is required by the Coal Mines Act regarding the inspection of machinery? (9)
4. State fully the provisions of the Coal Mines Act with reference to ventilation. (10)
5. State fully the provisions of the Coal Mines Act respecting explosives. (12)
6. What are the provisions of the Coal Mines Act regarding inspections by workmen? (9)
7. State fully the provisions of the Coal Mines Act referring to manholes on underground roads. (12)
8. What are the provisions of the Coal Mines Act relating to safety lamps? (10)
9. What are the provisions of the Coal Mines Act relating to the employment of boys, women and girls? (9)
10. What are the provisions of the Coal Mines Act relating to the inspection of a mine? Describe fully how these inspections are carried out in practice at any mine with which you may be acquainted. (9)

MINE MANAGERS' EXAMINATION.

Candidates must obtain 70% of the allotted marks to pass.

Paper No. 2.

Time—Two and a half hours.

GASES, SHOT-FIRING AND SAFETY LAMPS.

1. Show by means of sketches and describe the details of construction of a Wolf lamp; a means of locking and a means of relighting without opening it; and the course followed by the air entering, circulating in and leaving it. State why the flame of fire-damp burning within an unbonneted safety lamp standing in an explosive atmosphere does not pass through the wire gauze cylinder when the air is stagnant and why it does so when the air is moving with a certain velocity. (12)

2. What are the principal sources of coal-dust underground, and what means would you adopt—

(a) To reduce its production generally?

(b) To render a coal-dust explosive either improbable or limited in extent? (9)

3. Explain the law of diffusion of gases and its effect on their behaviour in mines. Give rule and example showing how to find the comparative velocity of diffusion of the different gases. (8)

4. What gases are given off by the use of gasoline locomotives underground. What dangers may arise in this connection and what precautions would you take? (6)

5. State what gases found in coal mines are combustible and how you would distinguish them. (10)

6. What alteration would you expect to find in the composition of the air in the workings of a mine as the result (1) of an explosion and (2) of an underground fire? What is the nature of the gases produced in each case, and what tests would you make before permitting men to enter the workings? (11)

7. Name the different explosives used in the different mines in the Province and describe their properties and peculiar characteristics. Show their adaptation for certain results in blasting operations and explain the dangers attending the use of each. (10)

8. What are the proportions in relation to fresh air of fire-damp, carbon-monoxide and carbon-dioxide, respectively, which render them fatal to life; and what at those proportions is the effect on the flame of a safety lamp in each case. Give the chemical composition, density and properties of each of these three gases. (12)

9. Describe the following instruments, barometer, thermometer, anemometer and water gauge. How are the readings of the first two instruments and the underground conditions affected by atmospheric variations? (13)

10. Describe fully two methods of firing shots and say under what circumstances you would adopt each. (9)

MINE MANAGERS' EXAMINATION.

Candidates must obtain 70% of the allotted marks to pass.

Paper No. 3.

Time—Three and a half hours.

VENTILATION.

1. A fan running at a speed of forty revolutions per minute produces 65,000 cubic feet of air per minute. What volume of air will it produce when the speed is increased to fifty-five revolutions per minute? (9)

2. In what emergency might it be advisable to reverse the ventilation in a mine:

(a) By an arrangement at the surface?

(b) By an arrangement underground?

Sketch and describe the arrangements in both cases and state what regulations you would make for this purpose. (8)

3. State the practical experience you have had in the ventilation of mines. (7)

4. A current of 25,000 cubic feet of air per minute is split so that it travels in three airways subject to a common pressure. The size and length of the airways are as follows:

Split A, 6x9 feet, 2,100 feet long; Split B, 6x10 feet, 2,400 feet long. Split C, 4x10 feet, 9,000 feet long. How will this quantity of air divide between these three splits if no regulators are employed? (12)

5. Explain three ways in which an explosion can occur in a coal mine where the safety lamps gives no indication of gas? (8)

6. The barometer is 30 inches and the temperature 60 degrees. What effect would it have on a volume of air if the barometer falls to 29.5 inches, and what must be the temperature so that the volume of air would remain the same? (6)

7. Describe with sketches the arrangements you would adopt to ventilate a rectangular shaft 20 feet long by 9 feet wide while it was being sunk to a depth of 600 feet. State the quantity of air you would have passing in the shaft-bottom. (10)

8. What are the causes of spontaneous combustion in coal mines? State what steps you would take to guard against it in a mine where the coal was liable to take fire spontaneously and what steps you would take to prevent a fire from spreading. (8)

9. Make a neat sketch of room and pillar workings for a mine with 160 men employed. Show number of men in each district, course of air showing air-splits, crossings, stoppings, doors and regulators. Give size of intake and return airways, also quantity of air passing in each split. (11)

10. If a pressure of 3.6 pounds per square foot is required to pass 32,000 cubic feet of air through an airway 6ft. by 5ft. what pressure will pass the same quantity of air through an airway 9ft. by 5ft., both airways having the same length? (7)

11. In opening out a mine generating fire-damp the upcast shaft is situated 250 feet from the downcast. Describe fully with sketches the fan you would install to yield 150,000 cubic feet of air per minute. Give also the capacity of the fan and a description of the fan drive. (14)

MINE MANAGERS' EXAMINATION.

Candidates must obtain 60% of the allotted marks to pass.

Paper No. 4.

Time—Three and a half hours.

PRACTICAL WORK.

1. Describe the different irregularities which occur in the continuity of coal seams and say how these have been caused. (7)

2. Draw a section of any six miles of country with which you are acquainted, showing the coal seams, faults, etc., and mention any features of geological interest. (9)

3. Describe with sketches how you would open a seam 10ft. in thickness pitching at an angle of 45 degrees with a lift of 800 feet so as to get a sufficient supply of air to the face of the entries and rooms, the seam being very gaseous. State where and how you would place the fan, the property being opened by a drift and all workings being above water level. (12)

4. A 4 feet seam of coal which is lying level is overlain by and separated by 6 feet of shale from a 5 feet seam of coal. The roof of the top seam of coal consists of strong shale. Show by sketches, any simultaneous or other method of working the two seams and give your reasons therefor. (11)

5. Describe with sketches the Fleuss Mine Rescue Apparatus. How many rescue men would you require and how would you organize them for repairing a stopping 600 feet distant from fresh air, only two men being able to actually work at the stopping at one time and no material having to be carried them? The completion of the work to occupy six hours. (12)

6. Describe with sketches the general surface arrangements you would require for the sinking of a shaft 18 feet by 9 feet, finished through several fiery seams of coal to a depth of 600 feet, the strata being very lightly watered. Give the principal dimensions. Give a list of signals you would adopt, and say what special precautions you would take when shot-firing. (11)

7. In a mine 500 feet deep, which is required to produce 1,000 tons in eight hours, describe the system of haulage and motive power you would adopt:

- (1) In a main haulage road 1,200 yards long dipping 1 in 6?
- (2) In the main levels on each side of the shaft?
- (3) In the raises and levels branching off them?

These roads being in a dry and dusty state what steps would you take:

- (a) To minimize the deposition of coaldust, and
- (b) To reduce the danger from the unavoidable deposit thereof? (12)

8. Give a general description of working a coal seam in which you have had experience, including a section of the seam. Make neat sketches of: (a) a district suitable for an output of 100 tons per day, and showing the methods of ventilation and haulage; (b) a working place showing the method of timbering and getting coal away from the face. (9)

9. Show by sketches two methods of timbering at the working face and two methods on the main haulage road and describe the conditions favourable to the adoption of each of these methods. (8)

10. What, in your experience is the proportion of loss of air at the working faces, through leakages? From what cause does this leakage arise and what are the best means of preventing it? (9)

MINE MANAGERS' EXAMINATION.

Candidates must obtain 60% of the allotted marks to pass.

Paper No. 5.

Time—Four hours.

MACHINERY.

1. Give a detailed description with sketches of any two of the following:

- (a) A controller to a winding engine.
- (b) The link motion of a winding engine.

(c) An injector for boiler feeding.

(d) An economiser.

2. What thickness of steel plate is required in the shell of a cylindrical boiler 60 inches in diameter, for a safe working pressure of 100 pounds per square inch, the tensile strain on the boiler plate not to exceed 8,000 pounds per square inch, and no allowance to be made for joints? (7)

3. High pressure electricity is generated at a power station and conducted along bare wires on the surface to a sub-station near the top of a winding shaft, where it is transformed to medium pressure. It is then conducted down shaft cables to a haulage motor underground. Describe the arrangements you would make for safeguarding the line and work from the generator to the motor. (7)

4. What is meant by negative load upon a winding engine? Describe the different methods of counteracting it. (6)

5. What pressure per square inch is exerted on the plunger of a pump that is raising water to a vertical height of 175 feet. What steam pressure would be necessary to do this work if the diameter of the steam cylinder was 6 inches and that of the plunger 4 inches, making no allowance for friction? (8)

6. Describe with sketch a modern system of screening a large output of coal with minimum breakage. (12)

7. What is the horse-power of an engine having a cylinder 9 inches in diameter, and a 20 inch stroke when making 60 revolutions per minute, with a mean effective pressure of 42 pounds per square inch? (8)

8. Describe any type of coal-cutting machine. State the depth of cut and the rate of cutting (either in feet or square feet per hour or per shift) and the horse-power required.

9. What pressure per square inch will an air-compressing engine produce, having two steam cylinders each 30 inches in diameter, the stroke being 7 feet and the steam pressure 45 pounds per square inch; the two air cylinders 36 inches and 20 inches in diameter, respectively? (11)

10. How many horse-power will be required to pull 20 loaded cars up an incline 400 feet long in 1 minute, the grade being 7 per cent? The weight of coal in each car is 3,000 pounds, and an empty car weighs 900 pounds. Allow 13 per cent. for the resistance of rope and pulleys. (12)

11. Describe the dangers that attend the use of electricity in and about mines and state the suggestions you would make to safeguard the workmen. (10)

MINE MANAGERS' EXAMINATIONS.

Candidates must obtain 60% of the allotted marks to pass.

LEVELLING.

Paper No. 6.

Time—Three and a half hours.

1. What is the angle of inclination and the percentage of grade of a slope that dips 8 inches per yard? If the slope is 1,000 feet long

measured on an incline, what is its length measured on a plan drawn to a scale of 100 feet per inch? (12)

2. A cross heading turned off the main entry is driven due north for a distance of 150 feet and dips 4 feet in this distance. The coal seam rises due west 1 foot in 6 feet. How far east or west from the centre of the cross heading will the line of strike, passing through the face of the heading, cross the main entry? (12)

3. The following readings were taken on a levelling staff: 6.70 feet in centre of road at beginning of level and all other readings at equidistant points 100 feet apart as follows: 3.40, 4.20, 2.80, 5.70, 1.80, 2.90, 8.30, 7.40, 6.50, 2.80, 8.40, 3.50, 2.40, 4.70, 1.80, 5.40, 2.20, 6.80, 4.30, and 3.82. The instrument was moved after the staff had been read at 600 feet and 1400 feet. Make out your level book on the "rise and fall" method, reduce your levels, check your work and plot the section. Horizontal scale 100 feet to 1 inch; vertical scale 10 feet to 1 inch. (25)

4. If the angle of inclination between two points is 30 degrees and the horizontal distance between these points is 200 feet, what is the corresponding distance measured on the pitch and what is the vertical height between the points? (10)

5. Describe fully how you would level an underground road which is (a) practically level, (b) pitching at a moderate inclination and (c) pitching at a steep inclination, and state any precautions required to insure accuracy. (15)

6. Describe an engineer's level, and state what steps you would take to see that it was in proper adjustment. (14)

7. Find the inclination of a seam of coal outcropping on a level surface. A vertical bore hole is sunk at a point 500 feet from the line of outcrop and penetrates the seam at a depth of 350 feet below the surface. (12)

MINE MANAGERS' EXAMINATIONS.

Candidates must obtain 60% of the allotted marks to pass.

Paper No. 7.

Time—Four hours.

SURVEYING AND MAPPING.

1. An old plan of a mine is put into your hands and you are required to survey and lay down on the same plan new workings in the same seam in another part of the field. How would you proceed so as to make sure that your survey was correctly laid down in relation to the surface lines and old workings, assuming these to be correctly shown on the old plan? (12)

2. Explain fully how you would make a fast needle survey. Illustrate your answer with a sketch plan of an underground traverse. (10)

3. How would you conduct the survey of a district of eight places in a pitching seam, making the best use of both fast and loose needle? Show how you would sketch the details and enter the readings in your book and state the method you would adopt to maintain the roads in the desired alignment. Plot the survey you have made without using a protractor. (20)

4. What errors in direction are likely to arise from surveys made with the magnetic needle and how can such errors be controlled and corrected? (10)

5. A certain seam strikes a vertical fault and the upthrow is found to be 60 feet, the seam beyond the fault dips at the rate of 4 inches per yard. What is the length of a drift rising $1\frac{1}{2}$ inches per yard that will cut the seam beyond the fault? (11)

6. An entry is driven north 40 degrees east and the rooms are turned north 10 degrees west. If the pillars are 30 feet wide and the rooms 24 feet wide, what is the distance between the room centres measured on the entry? (10)

7. Mention briefly the method you would adopt to secure accuracy when plotting workings on the plan of a mine on which are shown workings closed twenty years previously. (9)

8. What precaution would you take to prevent the paper on which a large plan is made from shrinking and how would you periodically test the same? (10)

9. Should a true north line in addition to a magnetic north line be placed upon a working plan? Give reasons for your answer. (8)

PIT BOSS EXAMINATION.

Candidates must obtain 60% of the allotted marks to pass.

Paper No. 1.

Time—One and a half hours.

COAL MINES ACT.

1. What are the statutory requirements regarding the working plans of mines and also abandoned mine plans? (11)

2. A mine is being worked by naked lights but it is found necessary to install safety lamps. What changes would you make in the working of the mine? (11)

3. What are the duties of (a) a pit boss, (b) a fire boss and (c) a shot lighter, as defined by The Coal Mines Act? (13)

4. What report books and other books of record are required by The Coal Mines Act to be kept at a mine? Explain clearly the purpose for which they are used and what entries should be made in them. (12)

5. What are the provisions of The Coal Mines Act respecting the use and handling of explosives? (15)

6. What are the requirements of The Coal Mines Act regarding the employment of persons about machinery? (12)

7. What are the requirements of The Coal Mines Act regarding (a) a supply of timber, (b) boilers and (c) machinery? (12)

8. What are the provisions of the "Eight Hour Law" relating to the employment of persons? (14)

PIT BOSS EXAMINATION.

Candidates must obtain 60% of the allotted marks to pass.

Paper No. 2.

Time—Two and a half hours.

VENTILATION, SHOT-FIRING AND SAFETY LAMPS.

1. Draw a plan of a section of underground workings on the room and pillar system, trace by arrows the course of the ventilation showing all necessary doors, stoppings, air crossings and also show the position and extent of the bratticing in the leading places. (10)

2. What is the specific gravity of fire damp. In what parts of a mine is it most liable to collect. How would you detect its presence and what precautions would you enforce. (7)

3. Explain shortly the principle of mine ventilation and friction of air. Sketch an ordinary water gauge and say what information may be gained by its use. (9)

4. During the inspection of the underground workings of a mine in which black powder is used for blasting material, you find a small percentage of fire damp in the return air leaving the last face. You also observe that the face is naturally wet, but the haulage road is dry and dusty. What further observations would you make and what action, if any, would you take? (7)

5. What is the meaning of the expression "spontaneous combustion." Enumerate the gases given off from an underground fire and discuss the one you consider the most dangerous. Describe the effect upon a man breathing a diluted mixture of this gas and air and explain how you would proceed to detect small quantities of the same. (8)

6. If a certain pressure produces 20,000 cubic feet of air per minute in an airway 6 feet in diameter, what quantity of air will the same pressure produce in an airway 12 feet in diameter assuming the airways have equal lengths? (9)

7. State what points you consider most essential in selecting a safety lamp. Describe with sketches some form of safety lamp with which you are familiar and which you consider most suitable for ordinary miner's use. (9)

8. Describe briefly how a shaft should be ventilated while sinking operations are being carried on and state the dangers arising from lack of ventilation. (8)

9. If the quantity of air passing in an airway is 60,000 cubic feet per minute and the water gauge is two inches, what is the horse-power producing the circulation? (9)

10. How would you ventilate an underground stable for fifty horses, also, how would you ventilate an underground electric motor house so as to prevent dust accumulating and in case of fire? (8)

11. Describe fully the equipment and operations of a shot lighter in a dry and fiery mine whose duty it is to fire twenty shots per day in coal. (7)

12. Sketch and describe with dimensions an air crossing over a main haulage road in a flat seam. The quantity of air to pass over the crossing is 30,000 cubic feet per minute and the thickness of the seam is 5 feet. (9)

PIT BOSS EXAMINATION.

Candidates must obtain 50% of the allotted marks to pass.

Paper No. 3.

Time—Three and a half hours.

PRACTICAL WORK.

1. Illustrate by sketches timbering of which you have had actual experience in main roads and working places where the seam is level, where it is of moderate inclination and where it is of steep inclination, stating the rate of dip in the last two cases. (9)

2. The timbering of a shaft used for hoisting coal shows signs of collapse. State how you would temporarily secure it and describe fully what means you would adopt in renewing it permanently. (10)

3. Give sketches of the best safety appliances you know for use on landings and on incline planes to prevent accidents from cars running loose. (8)

4. Describe what is meant by the following terms illustrating your answer by sketches:

(a) Upthrow fault.

(b) Anticline.

(c) Stratified deposits. (7)

5. How would you drive a cross measure tunnel 800 feet long dipping 1 in 12 to connect two seams of coal. What appliances would you recommend for expeditious driving? (9)

6. What considerations would guide you in deciding whether to work a mine by the long wall or stoop and room method respectively. Sketch a district worked by either method and which is suitable for 26 men. Give a section of the seam and the probable daily output. (11)

7. State the dangers attendant upon the use of coal-cutting machines and how you would overcome the difficulties arising from a bad roof at the face. (6)

8. Describe two systems of working coal with which you are acquainted and under what circumstances as to thickness of the seam, nature of the coal, and state of the roof and pavement you would adopt, one in preference to the other; always keeping in view the working of the coal in the easiest and cheapest manner consistent with the production of the greatest amount of lump coal and the safety of the miners. (12)

9. Describe with sketches the Fleuss Mine Rescue apparatus. Explain its principle and state what experience you have had with it. (10)

10. Sketch the arrangements you would make to tap extensive old workings containing water under a pressure of 200 feet. Show how you would allow the water to come to the pumps in such quantity as not to over burden them. (8)

11. Two rectangular shafts are to be sunk in the lignite field to a depth of 550 feet, one being a downcast and the other an upcast. The daily output of coal is to be 800 tons and the growth of water is 160 gallons per minute from the bottom. Sketch and describe how you would proceed with sinking operations, giving the form and dimensions you would recommend for each shaft with details of timbering, slides and buntons. (10)

PIT BOSS EXAMINATION.

Candidates must obtain 50% of the allotted marks to pass.

Table No. 4.

Time—Three and a half hours.

MACHINERY.

1. Describe any contrivance that may be adopted to prevent over-winding. (8)
2. Give particulars of engine, ropes and other appliances for hauling 800 tons of coal per day of eight hours in cars holding 1,500 pounds along a level engine plane:
 - (a) By endless rope.
 - (b) By main and tail. (10)
3. Describe some form of coal-cutting machine driven by:
 - (a) Compressed air.
 - (b) Electricity. (9)
4. Without discussing the powers in detail, explain the advantages and disadvantages of employing compressed air as compared with electricity underground. (7)
5. If the water is found to be very low in the steam boiler (out of sight in the gauge glass) with the steam pressure up and a brisk fire, state fully the steps that ought to be taken with the object of avoiding an explosion. (8)
6. The area of the piston of an engine is 500 square inches, the mean effective pressure is 30 pounds per square inch, the length of stroke is 8 feet and the engine is making twenty strokes per minute. What is the horse power? (10)
7. Describe some electric installation you are acquainted with for underground haulage and say how the current is carried from the generator to the motor. (8)
8. What is the breaking strain of a plough steel winding rope $1\frac{1}{4}$ inches diameter and what would you consider to be a safe working load? (6)
9. Give sketch and description of the best type of shackle for mine cars with which you are acquainted. (8)
10. Describe some form of brake used in connection with a hoisting engine. (9)
11. What is the principle of the air vessel as used on mine pumps. Show by sketch how an air vessel should be fitted to a pump. (7)
12. A sump 12 feet in diameter and 25 feet deep is full of water and has an inflow of 20 gallons per minute. How long will it take a pump having a 7 inch water end and a 14 inch stroke and making 75 revolutions per minute to empty the sump, the efficiency of the pump being 72 per cent. (10)

PIT BOSS EXAMINATION.

Candidates must obtain 50% of the allotted marks to pass.

Paper No. 5.

Time—Four hours.

SURVEYING.

1. Explain why the E and W marked on the plate of a compass are reversed from their true positions. (9)

2. What is meant by the declination of the compass needle and how does it vary from time to time? (8)

3. Describe some method of levelling an underground road which has an inclination of 26 degrees. (12)

4. Plot the following survey to a scale of 100 feet to the inch and give the length and bearing of the closing line:

<i>Station.</i>	<i>Bearing.</i>	<i>Distance.</i>
1 to 2.....S. 52 degs. 30 mins. W.....		135 feet.
2 to 3.....S. 64 " 20 " E.....		128 "
3 to 4.....S. 18 " 15 " W.....		173 "
4 to 5.....N. 58 " 10 " E.....		210 "
5 to 6.....S. 15 " 45 " W.....		106 "
6 to 7.....N. 82 " 05 " E.....		178 "
7 to 8.....N. 19 " 35 " E.....		194 "

5. Describe the method you would adopt to make a survey by (a) loose needle, (b) fast needle. (14)

6. State what information is required by The Coal Mines Act to be shown on plans of mines and what further information in your opinion it is advisable to have shown. (11)

7. Sketch and describe a miner's compass and state what precautions you would take to prevent errors while using it underground. (10)

8. Show by sketches sections of three coal seams with which you are acquainted including four to six feet of roof and pavement. Give full details of the hard and soft portions with any ribs of stone, and also their thicknesses.

FIRE BOSS EXAMINATION.

Candidates must obtain 60% of the allotted marks to pass.

Paper No. 1.

Time—One and a half hours.

COAL MINES ACT.

1. State fully what are the qualifications and duties of (a) a fire boss and (b) a shot lighter as laid down by The Coal Mines Act. (14)

2. What are the provisions of the The Coal Mines Act regarding—

(a) Fencing of machinery?

(b) Boilers?

(c) Ventilation? (12)

3. State fully the provisions of The Coal Mines Act respecting the care and handling of explosives. (16)

4. State the provisions of The Coal Mines Act respecting the employment of persons.

5. State the provisions of The Coal Mines Act with reference to safety lamps. (14)

6. What report books are required by the General Rules to be kept at a mine? Explain clearly the purpose for which they are used and what entries should be made in them. (12)

7. What are the provisions of The Coal Mines Act respecting man-holes on underground roads? (12)

8. What are the provisions of The Coal Mines Act regarding ambulances? (10)

FIRE BOSS EXAMINATION.

Candidates must obtain 60% of the allotted marks to pass.

Paper No. 2.

Time—Two hours.

VENTILATION AND SAFETY LAMPS.

1. How would you as fire boss proceed to make examination of a mine and its equipment with a view to securing the greatest efficiency and safety of operation. (10)
2. What is a regulator and when can it be used to advantage in a mine? (9)
3. If an explosion occurred in a safety lamp or if the lamp should suddenly fill with flame, what would you do to insure safety? (8)
4. Sketch and describe some form of safety lamp with which you are familiar and discuss the advantages and disadvantages of having safety lamps fitted with internal ignitors. (10)
5. What are the causes of mine fires? Explain how a fire may occur in a mine spontaneously and what means you would employ to prevent this, or, if started, how would you extinguish it with safety to the men employed? (8)
6. Specify the conditions that must be fulfilled in order to secure good ventilation in a mine employing a large number of men. Why is the ventilation of a mine necessary? (7)
7. Explain the principle of the safety lamp also what regulations you would adopt for the use of safety lamps in mines. (6)
8. Describe the action of the flame of a safety lamp when exposed to the different gases found in coal mines. (8)
9. Describe fully the anemometer and water gauge and say for what purpose each is used in mine ventilation. (8)
10. An airway 1,400 feet long is 8 feet high by 10 feet wide. What is the rubbing surface? (6)
11. In a mine ventilated by one continuous current of air, what would be the effect of splitting the current into several splits? Explain how it can be done and why such result is obtained. (8)
12. Make a neat sketch of a district of a mine with which you are familiar. Show by arrows the course of the ventilation marking on the positions of all doors, brattices, etc. (12)

FIRE BOSS EXAMINATION.

Candidates must obtain 50% of the allotted marks to pass.

Paper No. 3.

Time—One and a half hours.

GASES AND SHOT-FIRING.

1. Discuss the relative advantage and disadvantage of—
 - (a) naked lights in mines,
 - (b) mixed lights,
 - (c) safety lamps. (9)
2. Describe fully the chief noxious gases met with in mines in the Province. In what percentage is each dangerous to human life and how would you test for the presence of each in a mine? (12)
3. If you found an accumulation of fire-damp at the face of a

place in the rise section of stoop and room workings, describe with sketches how you would proceed to remove it and state the precautions you would adopt before doing so. (8)

4. Write a clear account of the occurrence of fire-damp in mines in (a) the Lethbridge District and (b) the Crow's Nest Pass District. Point out the sources from which it may be given off and the ways in which it may occur. Explain the importance of this as far as the working of the mine is concerned. (10)

5. State in detail what you would do to remove or reduce to a minimum the dangers due to coal dust. (7)

6. What precautionary methods would you adopt to prevent loss of life in mines where sudden outbursts of gas occur? (8)

7. Why is shot-firing in main roads dangerous and what precautions are necessary in doing so? (6)

8. Name the constituents of some high explosive, explain in what way it differs from black powder and under what conditions would you advocate its use in preference to black powder? (8)

9. Sketch and describe how you would ventilate a level tunnel 12 feet wide and 7 feet high to be driven 1800 feet through strata where outbursts of gas are liable to be met with. How would you deal with blowers of gas in the intake at intervals along the tunnel? (10)

10. What effect will a sudden fall of the barometer cause on the ventilation of a mine? (6)

11. State the difficulties to be overcome in removing large quantities of black damp from a section of workings. (7)

12. Describe fully the process of firing shots in a dry and dusty mine by means of the electric battery. State what explosive you would use and also give a description of the principle and action of the battery you would use. (9)

FIRE BOSS EXAMINATION.

Candidates must obtain 50% of the allotted marks to pass.

PRACTICAL WORK

Paper No. 4

Time—Two and a half hours.

1. How would you secure the safety of workmen who have to traverse haulage roads to and from their working places whilst the machinery is in motion? (8)

2. Describe with sketches the more important methods of supporting the roof and sides of main haulage roads. State which method you prefer and give reasons. (10)

3. State from your own experience the effects produced on the roof, coal and timbers as the results of imperfect packing in long wall working. How does this effect the safety of workmen employed at the face? (9)

4. Describe the Fleuss Mine Rescue Apparatus and state what experience you have had with it. (12)

5. Describe with sketches how you would extract pillars in stoop and room workings with a fairly good roof and state what are the chief

points to be aimed at and what to be avoided in order that as little coal and timber may be lost as possible. (10)

6. Sketch and describe the various modes you are familiar with of setting timber both in stoop and room and long wall workings and under what circumstances would you prefer one mode to another. (10)

7. Describe the modes of erecting brattice partitions with which you are acquainted and the circumstances in which each is applicable. (7)

8. Describe with sketch an arrangement for lowering cars from six landings on a road with an inclination of 1 in 8 by means of a back balance. (8)

9. Sketch and describe the different methods with which you are acquainted of attaching mine cars to an endless rope and under what circumstances each may be applied to most advantage. (7)

10. Describe the method of working at the mine at which you are employed giving a section of the seam with 4 to 6 feet of roof and pavement. (11)

11. What precautions would you adopt to prevent fires in mines in the lignite field? (8)

WAGES.

The scale of wages paid in the province during the year 1913 remains the same as it was at the end of the year 1912, and is as follows:

Outside Wages.

Fire Bosses	\$110.00 to \$115.00 per month.
Bottom man.....	\$2.89 per day, 10 hrs.
Slate pickers (boys).....	1.37 " " 10 "
Slate pickers (men)	2.47 " " 10 "
Car oilers (men)	2.47 " " 10 "
Car oilers (boys)	1.65 " " 10 "
Tally boys	1.37 " " 10 "
Teamsters	2.89 " " 10 "
Blacksmith	3.85 " " 10 "
Blacksmith's helpers	2.90 " " 10 "
Power-house engineers	3.85 " " 12 "
Power-house engineers	3.40 " " 8 "
Fan-men	2.90 " " 12 "
Hoisting engineers	3.20 " " 8 "
Hoisting engineers	3.78 " " 10 "
Hoisting engineers	4.40 " " 12 "
Tail rope engineers	3.63 " " 8 "
Tail rope engineers	3.85 " " 10 "
Endless rope engineers	3.30 " " 10 "
Box-car loader engineer	3.40 " " 10 "
Tipple engineer	3.40 " " 10 "
Screen engine tender	2.65 " " 10 "
Locomotive engineer	3.40 " " 10 "
Locomotive switchman	3.00 " " 10 "
Fireman	2.89 " " 8 "
Fireman	3.85 " " 12 "
Fireman's helper	2.65 " " 10 "
Railway-car helper	2.60 " " 10 "
Tipple dumper (man).....	2.89 " " 10 "
Tipple dumper's helpers.....	2.64 " " 10 "
Tipple dumper (boy).....	1.65 " " 10 "

DEPARTMENT OF PUBLIC WORKS

Top cagers	\$2.64	per day, 10 hrs.	
Car repairers	3.40	" " 10 "	
Car repairer's helper	2.90	" " 10 "	
Breaker engineer	3.40	" " 10 "	
Fan Fireman	3.40	" " 12 "	
Lampman (depending upon number of lamps and skill of man)....\$2.47 to	2.89	" " 8 "	
Lampman (depending upon number of lamps and skill of man)..\$2.47 to	3.40	" " 12 "	
Machinists	\$3.40 to 3.85	" " 10 "	
Machinist's helper	2.90	" " 10 "	
Ashman	2.50	" " 10 "	
Ashman	2.89	" " 12 "	
Wiper (man)	2.89	" " 12 "	
Coupler (man).....	2.47	" " 10 "	
Coupler (boy)	1.65	" " 10 "	
Breaker oiler	2.89	" " 11 "	
Washer or tipple oiler	2.89	" " 11 "	
Breaker picker boss	2.89	" " 10 "	
Timber framer	3.40	" " 10 "	
Timber sawyer	2.64	" " 10 "	
Box-car shoveler	2.89	" " 10 "	
Breaker platform boss	2.89	" " 10 "	
Breaker platform men.....	2.60	" " 10 "	
Breaker screen men	2.47	" " 10 "	
Rock bank men.....	2.47	" " 10 "	
Dirt bank men	2.47	" " 10 "	
Finisher after box-car loader	2.47	" " 10 "	
All other outdoor labour	2.47	" " 10 "	

Bee Hive Coke Ovens.

Levelling and drawing (6½ ton charge) per oven	\$1.00	
Levelling and drawing (5 ton charge) per oven.....	.80	
Loading into box or open cars (over 200 tons per month) per ton.....	.17	
Loading into box or open cars (less than 200 tons per month) per ton	.16	
Seam locomotive engineer	\$3.40	per day, 10 hrs.
Motorman	3.18	" " 10 "
Larryman	2.47	" " 10 "
Plasterers	2.47	" " 10 "
Carters and cleaners	2.47	" " 10 "
All other labour	2.47	" " 10 "

Belgian Coke Ovens.

Ram engine man	\$3.40	per day, 10 hrs.
Chargers	2.89	" " 10 "
Clayers	2.89	" " 10 "
Drawers	2.89	" " 10 "
Loaders	2.60	" " 10 "

Briquette Plant.

Engineer	\$3.86	per day, 12 hrs.
Briquetter	3.97	" " 12 "
Briquetter's helper	3.40	" " 12 "
Tar melter	2.89	" " 12 "
Labourers	2.89	" " 12 "

Inside Wages.

Shotlighter	\$3.30	per day, 8 hrs.
Bratticeman	3.30	" " 8 "

Bratticeman's helper	\$2.75	per day, 8 hrs.
Timberman	3.30	" " 8 "
Timberman's helper	3.75	" " 8 "
Tracklayers	3.30	" " 8 "
Tracklayer's helper	2.75	" " 8 "
Motorman	3.05	" " 8 "
Motorman's helper	2.75	" " 8 "
Locomotive engineer	3.05	" " 8 "
Locomotive switchman	2.75	" " 8 "
Drivers	3.03	" " 8 "
Drivers (wet places).....	3.30	" " 8 "
Drivers (spike team)	3.50	" " 8 "
Couplers (men)	2.75	" " 8 "
Couplers (boys)	1.65	" " 8 "
Switch boys	\$1.37 to 1.65	" " 8 "
Door boys	1.10	" " 8 "
Rope riders	3.03	" " 8 "
Main and tail rope riders	3.30	" " 8 "
Pushers	2.75	" " 8 "
Buckers	2.75	" " 8 "
Loaders	2.75	" " 8 "
Miners	3.30	" " 8 "
Miners (wet places).....	3.75	" " 8 "
Rock miners	3.75	" " 8 "
Timber handlers	3.03	" " 8 "
Labourers	2.75	" " 8 "
Cagers, slope and incline	2.75	" " 8 "
Cagers, shaft	3.30	" " 8 "
Machine men	3.75	" " 8 "
Machine men's helper	3.30	" " 8 "
Pumpmen	2.75	" " 8 "
Pumpmen (Dept. Nat. Resources C.P.R.)	3.20	" " 8 "
Hoistmen	\$3.03 to 3.30	" " 8 "
Drivers (boys)	\$1.65 to 2.75	" " 8 "
Grippers	2.75	" " 8 "
Grippers (boys)	\$1.65 to 1.75	" " 8 "
Pipe fitter's helpers	2.75	" " 8 "
Pit carriers	\$1.37 to 2.75	" " 8 "
Clutchmen	3.30	" " 8 "
Rollermen	2.75	" " 8 "
Miners on contract average from \$3.50	6.00	" " 8 "

This scale of wages is taken from an agreement made with representatives of approximately seventy per cent. of the men employed in mines in the Province and went into force on November 17th, 1911 and will continue until March 31st, 1915.

I have the honour to be, Sir,

Your obedient servant,

JOHN T. STIRLING,
Chief Inspector of Mines.

THE STEAM BOILERS BRANCH.

Inside Staff—	{ Chief Inspector of Boilers. One Clerk in Charge. Two Stenographers.
Outside Staff—	{ Five District Inspectors. Three Assistant Inspectors.

For the first time in the history of this Branch we are unable to report any increase in returns over the preceding year. This, however, is not due to any decrease in the activity of the Branch, or any decrease in the number of boilers to be inspected, but rather to unavoidable changes having to be made in the staff, consequent upon the resignation of three of our Inspectors and the creation of a new Inspection District at Medicine Hat, the rapid growth of that town and its surrounding territory making such a step absolutely necessary.

In February, Assistant Inspector Poole resigned due to ill health, and in March Mr. F. W. Hobson severed his connection with the Branch as Chief Boiler Inspector. Mr. Hobson's resignation was sincerely regretted as it meant no small loss to both the inside and outside work, he having taken such a prominent part in the formation of the Regulations adopted in 1909 and later revised, was, by reason of his wide knowledge (both theoretical and practical) of Boiler construction, particularly fitted to fulfil all the duties incidental to Chief Inspector.

Inspector W. D. Watson also resigned his position in the latter part of June, after three and a half years of faithful service to the Department, in order to devote his entire time to interests of a private nature.

These resignation necessitated changes as follows:

Chief Boiler Inspector: Joseph Buxton succeeding F. W. Hobson, resigned.

Inspector, Calgary District: W. Gray promoted to succeed Joseph Buxton.

Assistant Inspector, Lethbridge: J. F. Cargill succeeding W. Gray.

Inspector, Red Deer: John Douglas succeeding W. D. Watson, resigned.

Inspector, Medicine Hat District: E. S. Hodges promoted to position of District Inspector.

Assistant Inspector, Calgary: A. Dick succeeding E. S. Hodges.

Assistant Inspector, Edmonton: J. M. Mainwaring, succeeding F. P. Poole, resigned.

It is obvious that these changes seriously interfered with the regular routine of inspection work, four of the men were entirely new to the work, and two others, being transferred to districts strange to them, lost some little time before obtaining a thorough grasp of the details in their new territory.

Apart from the foregoing, the year's work has been most satisfactory, and although a considerable portion of the District Inspectors' time was taken up with examination of candidates for Engineer's Certificates,

special inspections of boilers, etc., on request from owners, a total of 1592 certificates were issued to cover boilers inspected. Thirty-three other boilers were inspected but no certificates issued therefor, while thirteen boilers were condemned as unfit for further service.

During the months of March and April the regular advertised examinations for engineers were held in 66 points throughout the Province, at which 1434 candidates in all presented themselves for examination. In addition the regular monthly examinations have been held at the respective headquarters of each District Inspector.

Certificates were issued to the successful candidates as follows:—

First Class	14
Second Class	33
Third Class	231
Traction Final	262
Fireman's Final	19
Provisional	735
Renewal of Provisional	161
Second Provisional	54
Total	1509

317 Permits have also been issued during the year to owners of boilers in accordance with the provisions of Section 34 of the Boilers Act.

Fees collected from all sources during the year, total \$18,565.98.

There were no cancellations of Engineers' Certificates for neglect of duty during the past year.

Convictions were obtained in six cases of prosecution for violation of the Boilers Act.

The three Ford roadsters purchased in 1912 and put into service where they could be used to the best advantage proved to be a successful experiment, and another car has been purchased during the past summer. In all, a distance of 14,539 miles were covered at an expense of \$1,202.52, or 8 1-4 cents per car mile.

It may be noted that fully fifty per cent. of the boilers now in operation in this Province have been built to Alberta regulations from designs approved by the Department, and as no new boilers can now be shipped into the Province for operation until so built, this percentage will increase year by year, thus proving that the action of the sister Provinces in 1909, by the adoption of uniform regulations for boiler construction and inspection, in anticipation of the phenomenal development of the country, and consequent growth and expansion of agricultural and commercial enterprise in all directions, has been amply justified.

It is significant that the Province of Ontario has now adopted a code of regulations based upon, and identical with those of Saskatchewan and Alberta. A movement is also operating with a view to adopting a uniform code of regulations similar to ours by the authorities of several states in the Union.

During the year 171 complete designs for boilers and accessories have been submitted to the Department for survey and registration by manufacturers scattered throughout Canada, the United States and Great Britain.

The growth in population of the towns and cities in this Province during the past two or three years has necessitated the erection of many large churches, schools, theatres and other buildings where people congregate in great numbers, and in view of the fact that such buildings are all steam heated, it will be absolutely necessary, in the interests of public safety, to effect more stringent legislation covering heating boilers installed in such buildings, not only as regards installation and inspection of the boilers, but also to ensure that the operation of same is entrusted to none but men who are able to prove their ability to take proper care of any steam heating apparatus placed in their charge. The element of danger through possible explosion of heating boilers is infinitely greater than that of high pressure boilers, as the latter are subject to compulsory inspection, and must be under the direct charge of engineers holding certificates of qualification, whereas the former are not so protected, and in many instances, are left to the entire care of men who, though they may be conscientious in the performance of set duties, have little or no conception of the enormous amount of latent energy stored up in a steam boiler, which, if not properly guarded, is liable to break forth with terrible force and disastrous consequences.

While no fatalities due to boiler explosions occurred during the year, one engineer lost his life while crossing a bridge over the Sturgeon River with a traction engine, caused by the collapse of the bridge precipitating the engine into the river and burying the engineer underneath. Another engineer was fatally injured through being caught in the machinery while loading a steam shovel on to cars in the new C.P.R. yards at Edmonton. Two other accidents of a minor nature occurred during the year whereby one man was seriously scalded through the bursting of a blow-down tank and another man suffered the loss of an eye caused by the bursting of a sight feed lubricator glass.

The names and addresses of the Chief, District and Assistant Inspectors are given below:—

Jos. Buxton	Edmonton.
David Fraser... ..	Edmonton.
N. Marshall... ..	Lethbridge.
E. S. Hodges.....	Medicine Hat.
W. Gray.....	Calgary.
John Douglas.....	Red Deer.
J. F. Cargill.....	Lethbridge.
J. H. Mainwaring.....	Edmonton.
A. Dick.....	Calgary.

A schedule of Certificates issued and fees collected, Inspector's Annual Reports, List of Manufacturers and list of final Certificates issued to December 31st, are appended:—

	1912	1913
Number of Certificates issued for boilers inspected...	1590	1592
Number of advertised examination for Engineers held	62	66
Number of First Class Certificates issued	13	14
Number of Second Class Certificates issued	56	33
Number of Third Class Certificates issued	421	231

	1912	1913
Number of Traction Final Certificates issued	139	262
Number of Fireman's Final Certificates issued	4	19
Number of Provisional Certificates issued.....	751	735
Number of Second Provisional Certificates issued	86	54
Number of Renewals of Provisional Certificates.....	121	161
Number of Permits issued	284	317

FEES COLLECTED.

	1912	1913
For inspection of boilers	\$7,898.00	\$7,701.50
For special inspection of boilers	438.66	649.23
For examination of engineers for Final Certificates	3,308.00	3,013.50
For Provisional Certificates	3,755.00	3,708.00
For Second Provisional Certificates	410.00	270.00
For renewal of Provisional Certificates	303.00	402.50
For Permits	1,420.00	1,585.00
For surveys of drawings.....	1,187.04	1,236.25
	\$18,719.70	\$18,565.98

EXPENDITURE.

For the year ending December 31st, 1913, in connection with the administration of the Boilers Act	\$27,483.09
--	-------------

A consolidated summary, compiled from the Inspectors' Reports, showing the total number of defects found in boilers examined during the year:

DEFECTS IN	Hor. Tub.	Hor. Fur.	Ret. Tub.	Loco. F. Bos.	Vert. Tub.	Water Tube	Total
Shell and drum.....	47	7	..	1	11	2	68
Front tube sheet	9	..	..	25	..	..	34
Back tube sheet	18	..	..	25	2	..	45
Top tube sheet	..	..	..	1	7	..	8
Bottom tube sheet	..	..	..	1	2	..	3
Firebox side sheet (inside)...	..	..	..	58	..	..	58
Firebox side sheet (outside)...	..	..	..	5	..	..	5
Crown sheet.....	..	..	1	76	..	..	77
Saddle sheet.....	..	..	..	26	..	..	26
Inside W.B. sheet	..	..	..	36	..	..	36
Outside W.B. sheet.....	..	..	..	1	..	..	1
Back sheet	..	..	..	7	..	..	7
Face plate	..	..	..	1	..	..	1
Throat sheet	..	..	..	4	..	..	4
Foundation and door rings ..	..	..	..	3	3	..	6
Stay bolts	..	..	1	84	1	..	86
Crown stays	..	..	..	34	..	..	34
Longl. stays	15	..	..	..	..	..	15
Leaking seams	23	..	..	7	1	1	32
Rivets	8	..	..	2	1	..	11
Main flues	..	..	..	..	..	..	..
Tubes	12	2	1	39	62	65	181
Hand holes and man holes...	7	..	..	11	27	1	46
Studs and bracket (attach)...	..	..	1	34	4	..	39
Safety valves	10	..	10	92	34	4	150
Steam guages	19	1	5	79	31	..	135
Water guage fittings	31	1	5	63	17	4	121
Blow down	26	2	6	137	35	1	207
Fusible plug	24	..	2	41	23	6	96
Other fittings	53	..	4	107	31	6	201
Settings	33	..	..	..	..	..	33
Heavy scale	21	8	..	22	1	10	62
Feed arrangement	40	..	..	9	13	4	66
Steam piping and supports...	36	..	..	2	1	1	40
Hand railing for fly wheels, switchboards, etc	8	..	..	1	..	1	10
Total	440	21	36	1034	307	106	1944

The following is a complete list of manufacturers whose designs for boilers and boiler accessories have been submitted to and approved by the department.

MANUFACTURERS OF BOILERS.

Canada.

American-Abell Co., Toronto, Ont.
 Bell (Robert) Co., Seaforth, Ontario.
 Beatty (M.) & Sons, Welland, Ontario.
 Berg Manufacturing Co., Toronto, Ontario.
 Caledonian Ironworks, Montreal.
 Canada Iron Corporation, Ltd., Midland, Ontario.
 Canadian Allis Chalmers Co., Montreal, Que.
 Doty Engine Works, Goderich, Ontario.
 Dominion Bridge Co., Montreal, P.Q.
 Fraser & Chalmers Co., Montreal, P.Q.
 Grand Trunk Pacific Railway Co., Winnipeg, Manitoba.
 Goldie & McCulloch, Ltd., Galt, Ontario.

Inglis (John) Co., Ltd., St. Catherines, Ontario.
 International Engineering Works, Ltd., Amherst, N.S.
 Jenckes Machine Co., Ltd., St. Catherines, Ontario.
 Leonard (E.) & Sons, London, Ontario.
 Marsh & Henthorn, Ltd., Belleville, Ontario.
 Montreal Locomotive Works, Montreal.
 Matheson (I.) & Co., New Glasgow, N.S.
 Macdonald (The) Thresher Co., Stratford, Ontario.
 Napanee Iron Works, Napanee, Ontario.
 Polson Iron Works, Toronto, Ontario.
 Robb Engineering Co., Amherst, N.S.
 Sawyer-Massey Co., Ltd., Brantford, Ontario.
 Waterous (The) Engine Co., Ltd., Brantford, Ontario.
 White (George) & Sons, Ltd., London, Ontario.

Great Britain.

Babcock & Wilcox, Ltd., London (Canadian Agency, Montreal).
 Fowler (John) & Co., Leeds, Yorkshire, Eng.
 Lubecker (The) Machine and Manufacturing Co., London, Eng.
 Robey & Co., Limited, Lincoln, England.
 Rushton Proctor Co., Lincoln, Eng.
 Ramsomes, Sims & Jeffries, Ipswich, Eng.

United States.

American Hoist & Derrick Co., St. Paul, Minn.
 Aultman & Taylor Co., St. Paul, Minn.
 Avery Co., Peoria, Ill.
 Broderick (The) Co., Muncie, Ind.
 Buffalo Steam Road Roller Co., Springfield, Ohio.
 Bucyrus Co., Ltd., Milwaukee, Wis.
 Bigelow Co., New Haven, Conn.
 Clyde Iron Works, Duluth, Minn.
 Case (J. I.) Threshing Co., Racine, Wis.
 Duluth Boiler Works, Duluth, Minn.
 Davenport Locomotive Works, Davenport, Iowa.
 Erie City Iron Works, Pa.
 Freeman (S.) & Sons, Racine, Wis.
 Farquahar (A. B.) Co., York, Pa.
 Frost Manufacturing Co., Galesburg, Ill.
 Garr, Scott Co., Richmond, Ind.
 International Boiler Works, East Stroudsburg, Pa.
 Industrial Works Co., Bay City, Mich.
 Johnson Bros., Ferrysburg, Mich.
 Keystone Driller Co., Beaver Falls, Pa.
 Kelly Springfield Road Roller Co., Springfield, Ohio.
 Leffel (J.) & Co., Springfield, Ohio.
 Marion Steam Shovel Co., Marion, Ohio (Canadian Agents, F. H. Hopkins & Co., Montreal, P.Q.).
 Muskegon Boiler Works, Muskegon.
 Mundy (J. F.) Hoisting Engine Works, Newark, N.J.
 Nichols & Shepard Co., Battle Creek, Mich.
 Oil Well Supply Co., Pittsburg, Pa.
 Orr & Sembower, Reading, Pa.
 Porter (H. K.) Co., Pittsburg, Pa.
 Reeves & Company, Columbus, Ind.
 Rumely Co., La Porte, Ind.
 Schwab-Lazotte Co., Milwaukee, Wis.
 Springfield Boiler and Manufacturing Co., Springfield, Ill.
 The Browning Engineering Co., Cleveland, Ohio.
 Union Iron Works, Erie, Pa.

MANUFACTURERS OF BOILER ACCESSORIES.

Canada.

Babcock & Wilcox, Ltd., Montreal, P.Q.
 Beatty (M.) & Sons, Ltd., Welland, Ont.
 Crane & Ordway Co., Ltd., Winnipeg, Man.
 Canadian Fairbanks Co., Montreal, P.Q.
 Engineering Specialties Co., Toronto, Ont.
 Goldie & McCulloch Co., Ltd., Galt, Ont.
 Jenkins Bros., Montreal, P.Q.
 Leonard (E.) and Sons, Ltd., London, Ont.
 McAvity (T.) and Sons, St. John, N.B.
 Morrison (Jas.) and Sons, Brass Mfg. Co., Toronto, Ont.
 Penberthy Injector Co., Windsor, Ont.
 Peacock Bros., Montreal, P.Q.
 Robb Engineering Co., Amherst, N.S.

GREAT BRITAIN.

Blakeborough & Sons, Brighton, Eng.
 Glenfield and Kennedy Co., Kilmarnock, Scot.

UNITED STATES

American Steam Gauge & Valve Co., Boston Mass.
 Ashton Valve Co., Boston, Mass.
 Ashcroft Manufacturing Co., Chicago, Ill.
 Buckeye Iron & Brass Works, Dayton, Ohio.
 Bordo (L. J.) Co., Philadelphia, Pa.
 Crosby Steam Gauge & Valve Co., Boston, Mass.
 Crane Company, Chicago, Ill.
 Industrial Instrument Co., Foxboro, Mass.
 Huyette, (P.B.) Co., Philadelphia, Pa.
 (Submitted by H. L. Pelier & Co., Montreal, P.Q.)
 Jarecki Manufacturing Co., Erie, Pa.
 Kunkle (E. B.) & Co., Fort Wane, Ind.
 Lunkenheimer Co., Cincinnati, Ohio.
 Lonergan (J. E.) & Co., Philadelphia, Pa.
 Marsh (J. P.) & Co., Chicago, Ill.
 Nelson Valve Co., Philadelphia, Pa.
 National Steam Specialties Co., Chicago.
 Ohio Brass Works, Mansfield, Ohio.
 Powell (Wm.) & Co., Cincinnati, Ohio.
 Pittsburg Valve Foundry & Construction Co., Pittsburg, Pa.
 Roe Stephens Co., Detroit, Mich.
 United States Gauge Co., New York, N.Y.
 Yarnell Waring Co., Philadelphia, Pa.

EDMONTON, January 20th, 1914.

JOHN STOCKS, ESQ.,
Deputy Minister of Public Works,
 Edmonton, Alta.

SIR,—I have the honour to submit herewith my Annual Report for the year ending December 31st, 1913, in accordance with Section 8 of the Boilers Act.

The earlier part of the year was devoted chiefly to laying out inspection itinerary throughout the district to be covered by Assistant Inspector Hodges and myself, and in attending to mailed and personal inquiries from steam users and engineers relative to the application of the various details contained in the Act and Regulations.

The latter part of January and earlier part of February required my attendance at the Annual Conference of District Inspectors held in Edmonton, when matters relating particularly to amendments to the Boilers Act, 1912, were thoroughly discussed, also the question of allowances to be made in applying the Regulations to boilers installed in the Province previous to the inception of the Regulations, especially in regard to rating and boiler accessories. A complete new set of questions had also to be drawn up for engineers' examinations suitably graded for the various classes of certificates issued by the Department.

At the close of the Conference I returned to Calgary and made preparations for holding examinations of candidates for engineers' certificates advertised to be held at fifteen different points in the district during the month of March. Notwithstanding the fact that candidates can be examined at Calgary on the first Saturday in each month throughout the year, a very large number of applicants in the outlying parts of the district availed themselves of the opportunity afforded to qualify at the places most convenient to themselves in the series of advertised Spring Examinations. In all 180 came up for examination and 141 of these were granted certificates as follows:—

First Class Certificates	2
Second Class Certificates	6
Third Class Certificates	32
Traction Final Certificates	29
Provisional Certificates	55
Renewal of Provisional Certificates	11
2nd Provisional Certificates	6
Total	141

Thirty-nine applicants were turned down for lack of knowledge and experience in the care and operation of boilers and engines.

Twenty-nine permits were issued under Section 34 of the Boilers Act to accommodate owners who were unable to immediately secure the services of certificated engineers.

In the month of April I was transferred from Calgary to Edmonton to take over the position of Chief Inspector rendered vacant through the resignation of Mr. Hobson.

With reference to Section 12 of the Boilers Act covering registration of designs I find that during the year 171 complete designs have been submitted to this Department for survey and registration by the various manufacturers whose names and addresses are published in Departmental List of Approved Boilers and Accessories. Of these 125 were new designs for boilers to be constructed for service in the Province, 97 being finally approved and registered after the designs had been revised in order to comply in every detail with the requirements laid down in the Regulations. Forty-six designs covered accessories, Power Plant installations and lay-out generally. A number of these also required revision before being finally accepted and approved.

The amount of fees collected by the Department for this service during the year totalled \$1,236.25.

Two engineers met with fatal accidents during the year though under circumstances which called for no investigation of an official nature by the Department. There were two other accidents in connection with the operation of boilers, viz.: the bursting of a feed lubricator glass which resulted in the engineer losing the sight of one eye, the second case being the bursting of a blow-down tank, severely scalding the engineer in charge.

I am pleased to be able to state that there have been no cases of boiler explosions during the year.

I have the honour to be, Sir,

Your obedient servant,

JOSEPH BUXTON,

Chief Inspector of Boilers.

LETHBRIDGE, December 31st, 1914.

JOHN STOCKS, ESQ.,

Deputy Minister of Public Works,

Edmonton, Alta.

SIR,—I have the honour to submit to you my Annual Report for the year ending December 31st, 1913, in accordance with Section 8 of the Boilers Act.

At the close of the Conference of Inspectors which was held at Edmonton in the month of January for the purpose of discussing matters of importance connected with the Steam Boilers Branch, I returned south and attended to Inspections in the Pass District.

On February 28th I started out to hold the advertised series of Spring Examinations at 14 different points in my district, finishing these on the 7th of April in Lethbridge. These examinations are held in addition to the regular examinations held in the Court Buildings here on the first Saturday in each month throughout the year. There has been a slight decrease in the number of candidates this year due principally to the formation of a new Inspection District with headquarters at Medicine Hat to which point many candidates went for examination who would otherwise have had to travel to Lethbridge.

The number of men taking examination for Engineers' Certificates totalled 280, thirty of whom failed to qualify for the class in which they sat, but were granted certificates of a lower grade. The following shows the various classes of certificates recommended:

First Class Certificates	5
Second Class Certificates	8
Third Class Certificates	74
Final Traction Certificates	63
Firemen's Final Certificates	3
Provisional Certificates	127
Total	280

A total of 188 boilers were inspected by me during the year, their condition being reported as follows:

Good	112
Fair	64
Moderate	9
Condemned	3
Total	188

The following shows the number of the different types of boilers inspected:—

Horizontal Tubular	39
Locomotive Firebox	108
Water Tube	21
Robb Mumford	14
Vertical Fire Tube	6
Total	188

Although everything possible had been done there still remained about 80 boilers which were not inspected at the end of the year, neither Mr. Cargill nor myself being able to cover the following places, namely, Rocky Coulee, North Macleod, Granum, Claresholm, Stavely, Parkland and Oxley.

Office work is very heavy and necessitates the loss of considerable time through my having to return to Lethbridge almost weekly in order to give my personal attention to matters of urgent nature. During the year at the request of fifteen firms I have made special inspections of boilers, engines, pumps, and general piping arrangements, all fees and expenses incidental thereto being paid by the firm desiring such inspections, as per Section 6 of the Boilers Act. This work greatly interfered with the regular itinerary of boiler inspection, but as the firms concerned were anxious to secure the best plants possible with the most economic lay-out, I think the time devoted thereto was profitably spent.

Eighty-three permits were issued under Section 34 of the Boilers Act to enable owners to keep their plants in operation until properly certified engineers could be obtained.

One employer and one employee were prosecuted and found guilty of violating Section 35 of the Boilers Act.

I referred in last year's Report to accidents which occurred on the 31st day of December, 1912, in Crow's Nest Pass and Medicine Hat.

Investigations into the cause of same were made after my Annual Report had been forwarded to the Department. I may say, however, that in the case of the accident at Crow's Nest Pass, the engineers were directly responsible inasmuch as they did not keep the boilers clean, resulting in damage through burning of the plates. For this proven neglect the certificates held by these engineers were suspended for some time. In the case of the accident at Medicine Hat, no evidence was brought forward to prove negligence on the part of the engineers, consequently no action was taken against them.

I have to report one accident to a boiler through the collapse of a Firebox Crown Sheet on a Locomotive Boiler caused by shortness of water. This was a serious accident, though, fortunately, no person was injured. The engineer who was in charge of this boiler, and directly responsible for the accident, immediately left the country, presumably to escape action being taken against him.

I have the honour to be, Sir,

Your obedient servant,

NAT MARSHALL,

District Inspector of Boilers.

LETHBRIDGE, December 31st, 1913.

JOHN STOCKS, ESQ.,

Deputy Minister of Public Works,

Edmonton, Alberta.

SIR,—I have the honour to submit to you the following Report in connection with my duties as Assistant Inspector of Boilers in No. 1 District for the year ending December 31st, 1913, in compliance with Section 8 of the Boilers Act.

I was appointed to the staff on the 8th of March and for several weeks accompanied the Senior Inspector of Boilers, Mr. Marshall, and also the Assistant Inspector of Boilers, Mr. Gray, on their rounds of inspection in order to become familiar with the routine work.

On the 23rd of April I commenced inspecting, from which date until the end of the year I inspected a total of 256 boilers issuing certificates for 247 of them.

During the year I have made seven special inspections at the request of various owners of boilers, all expenses incurred being paid by the owners as required by Section 6 of the Boilers Act.

Number of Boilers inspected by myself.....	256
Certificates issued	247
Certificates not issued	9
	256

Condition of boilers inspected by myself:

Good	196
Fair	51
Moderate	9
	256

The foregoing total comprises the following types of boilers:—

Locomotive	177
Horizontal Tubular	35
Robb Mumford Patent	10
Water Tube	10
Vertical Dry Top	12
Vertical Flue	1
Horizontal Return Flue	8
Compressed Air Receivers	3

I examined seven candidates for Provisional Certificates to whom same were granted.

Upon application of owners of steam plants, who at the time were unable to obtain the services of certificated engineers, I issued twelve Permits under section 34 of the Boilers Act.

The absence of snow and the resultant good condition of the roads has made it possible for nearly all travelling to be done by automobile, except to the mountainous district where travelling was done by train and team.

I have the honour to be, Sir,

Your obedient servant,

JOHN F. CARGILL,

Assistant Inspector of Boilers.

CALGARY, January 2nd, 1914

JOHN STOCKS, ESQ.,

Deputy Minister of Public Works,

Edmonton, Alberta.

SIR,—I have the honour to submit my annual report for the year 1913, as Inspector of Boilers in accordance with Section 8 of the Boilers Act.

The first four months of the year were devoted to inspection of boilers in Lethbridge District No. 1, during which time I inspected and issued certificates for a total of 80 boilers, summarized as follows:

Conditions of boilers inspected:

Good	76
Fair	4
Total	80

Types and number of each type inspected:—

Horizontal Tubular	44
Water Tube	6
Robb Mumford	3
Vertical Fire Tube	12
Locomotive	15
Total	80

In the month of May I was appointed as Inspector in charge of District No. 2 with headquarters at Calgary, succeeding Mr. Buxton, who had been transferred to Edmonton, and since that time have held the regular monthly examinations of candidates for Engineers' Certificates, and have also orally examined many candidates for Provisional Certificates at various times in order to accommodate employers requiring their services.

A summary showing the total number of candidates recommended for certificates follows:—

First Class Certificates	2
Second Class Certificates	4
Third Class Certificates	25
Traction Final Certificates	28
Provisional Certificates	141
Renewal of Provisional Certificates	16
Final Fireman's Certificate.....	5
Total	221

The number of boilers inspected in District No. 2 totals 111, covered by the following summary:—

In good condition	82
In moderate condition	3
In fair condition	25
Condemned	1
Total	111

Types and number of each type inspected:—

Horizontal Tubular	28
Water Tube	12
Robb Mumford	2
Vertical Fire Tube	29
Marine (Dry Back)	3
Locomotive	37
Total	111

Office work continues to increase, and the time required for attending to correspondence and personal enquiries leaves little time for the inspection of boilers outside the city. Four hundred and six letters have been received and 460 dispatched from May 1st to December 31st.

Fifty-five permits were issued under Section 34 of the Boilers Act to enable employers to keep their plants in operation until certified engineers could be engaged.

The District south of Calgary (east and west) has been fairly well covered by the Assistant Inspectors, but that part of the District lying to the north remains untouched this year.

I have no accidents of a serious or minor nature to report in connection with the operation of boilers and engines.

I have the honour to be, Sir,

Your obedient servant,

WM. GRAY,

District Inspector of Boilers.

CALGARY, January 2nd, 1914.

JOHN STOCKS, ESQ.,

Deputy Minister of Public Works,

Edmonton, Alberta.

SIR,—I have the honour to submit to you my annual report for the year ending December 31st, 1913, in accordance with the requirements of Section 8 of the Boilers Act.

I joined the staff on July 4th, 1913, and accompanied Mr. Gray on inspection trips until August in order to become familiar with the routine of the work. Since then I have inspected 190 boilers, as follows:—

Boilers inspected and certificates issued	187
Boilers inspected and no certificates issued....	2
Boilers condemned	1
General conditions of boilers inspected:—	
Good	37
Moderate	54
Fair	87
Bad	2
Different types of boilers inspected:—	
Locomotive	131
Horizontal Tubular	45
Return Flue	4
Lancashire	1
Vertical	8
Vertical Submerged	1

I recommended the issuing of three Provisional Certificates, and one renewal of Provisional Certificate, four Permits were also issued under section 34 of the Boilers Act.

I have the honour to be, Sir,

Your obedient servant,

ARCHIBALD W. DICK,

Assistant Inspector of Boilers.

RED DEER, January 9th, 1914.

JOHN STOCKS, ESQ.,

Deputy Minister of Public Works,

Edmonton, Alberta.

SIR,—I have the honour to submit to you the following report of the work done in District No. 3 dating from June 20th, 1913, to December 31st, 1913.

I joined the staff on the 21st of May, 1913, and accompanied Inspector Watson on an inspection trip lasting three weeks in order to become familiar with the routine of the work.

From June 20th to the end of the year I have inspected a total of 166 boilers summarized as follows:—

Boilers inspected and certificates issued	163
Boilers inspected and no certificates issued	3
Total	166

The boilers for which certificates of inspection were issued are rated as follows:—

Good	103
Very Fair	48
Fair	12
Total	163

Of the remaining three boilers, one had just been inspected previously at Calgary, another owing to the plant being closed down indefinitely, and the third was condemned until the repairs ordered were carried out, and hydrostatic test applied.

The different types of boilers inspected are enumerated as follows:—

Locomotive Firebox	142
Horizontal Tubular	15
Return Tubular	5
Vertical Tubular	4
Total	166

Two special inspection trips had to be made at the request of owners, all expenses for same being collected and turned in to the Department.

The regular monthly examinations for engineers were held at Red Deer on the first Saturday of each month.

A total number of 71 candidates were examined, 3 failed to pass for the class in which they sat, but were granted certificates of a lower grade, and three were turned down for lack of experience.

Issue of certificates recommended as follows:—

Provisional Certificates	48
Traction Final Certificates	15
Third Class Stationary Certificates	4
Second Class Stationary Certificates	1
	68

I have recommended the renewal of 24 Provisional Certificates and also issued 8 Permits under Section 34 of the Boilers Act to enable owners to keep their outfits in operation until they could obtain certified engineers.

No accidents of any kind have been reported to me as the result of defective boilers or the connections thereto in this district.

I have the honour to be, Sir,

Your obedient servant,

JOHN DOUGLAS,

Inspector of Boilers.

RED DEER, February 11th, 1914.

JOHN STOCKS, ESQ.,

Deputy Minister of Public Works,

Edmonton, Alberta.

SIR,—I have the honour to submit to you my annual report of the work done in this District No. 3 up till June 20th, when I resigned my position.

From January 1st to June 20th, I inspected a total of 81 boilers, summarized as follows:—

Boilers inspected and certificates issued	79
Boilers inspected and no certificates issued	2
	81

The boilers for which certificates of inspection were issued are rated as follows:—

Good	55
Very Fair	17
Fair	7
Total	79

Of the remaining two, one was condemned, and the other sealed up as the owner could not be located.

The different types of boilers inspected are enumerated as follows:—

Locomotive Firebox	64
Horizontal Tubular	13
Return Tubular	4
Total	81

The usual Spring Examinations were held for Steam Engineers, besides the regular monthly examinations held at Red Deer on the first Saturday in each month.

A total of 170 candidates presented themselves for examination. Of these 9 were turned down for lack of experience and the balance passed, and certificates were recommended to be issued as follows:

Provisional Certificates	82
Final Traction Certificates	57
Third Class Stationary Certificates	22
Total	161

I have also recommended the renewal of 14 Provisional Certificates.

Two Permits were issued under Section 34 of the Boilers Act, to enable owners to keep their outfits in operation until they could obtain certified engineers.

I have the honour to be, Sir,

Your obedient servant,

W. D. WATSON,

Inspector of Boilers.

EDMONTON, January 24th, 1914.

JOHN STOCKS, ESQ.,

Deputy Minister of Public Works,

Edmonton, Alberta.

SIR,—I have the honour to submit to you my annual report for the year ending December 31st, 1913, as requested by Section 8 of the Boilers Act.

After holding the regular monthly examination of candidates for Engineers' Certificates on January 4th, I went west on the line of the Grand Trunk Pacific to inspect some new installations of mine boilers, also Contractor's plants, which required immediate attention, returning to Edmonton in time to attend the Conference of District Inspectors which convened January 27th, and sat until February 7th.

At the close of the conference I started out to hold examinations advertised to be held at seventeen different points in my district during the month of March and April, in addition to the regular examinations held at headquarters on the first Saturday in each month throughout the year.

Following is a summary showing the total number of candidates presenting themselves for examination and the grade of certificate recommended to be issued:—

First Class Certificate	4
Second Class Certificate	19
Third Class Certificate.....	116
Traction Final Certificate	70
Provisional Certificate	164
Renewal of Provisional Certificate	32
Fireman's Final Certificate	9
Total	414

In addition to these there were applications received from 47 others which had to be turned down owing to lack of experience.

During the year my work of inspecting boilers has been confined chiefly to Edmonton and its immediate vicinity, there being sufficient work to keep me busy within this area the entire time. The outlying district was taken care of by Assistant Inspector Poole until the end of February, when he was obliged to resign owing to ill health. In the month of May Mr. J. H. Mainwaring was appointed to succeed Mr. Poole and spent several weeks accompanying me in the round of inspection in order to thoroughly familiarize himself with the duties of an Inspector.

Number and types of boilers inspected, follows:—

Horizontal Tubular	58
Vertical Tubular	44
Locomotive Firebox	19
Horizontal Tubular	13
Water Tube	10
Return Tubular	3
Incinerator	1
Total	148

Thirty-seven of these were in good, and 111 in fair condition at the time of inspection. Sixty-eight new boilers came under inspection for the first time, some of which showed evidence of inferior workmanship, this being particularly noticeable in boilers inspected during the early part of the year.

While dealing with the subject of inspections it may be mentioned that my attention has on several occasions been drawn to the great danger the general public are exposed to in regard to steam heated buildings through the owners thereof employing men to operate low pressure boilers, who, in many instances, have little or no conception of the amount of energy stored in one of these large heating boilers, even though carrying only low pressures. I have personally come across cases where men in charge of these boilers had not the faintest idea as to the functions of a safety valve, and in view of these facts something should be done to include these heating boilers in the Act and bring them under compulsory inspection, and at the same time compel the owners to employ only men as firemen who have some intelligent idea of how to operate boilers with safety to the general public.

Work in connection with engineers' examinations has been particularly heavy during the year and continues to increase, absorbing more and more of the time which otherwise would be devoted to inspections. Fully twenty-five per cent of my time is now taken up by this branch of the work alone, entailing as it does considerable correspondence, personal calls for prospective purchasers of boilers regarding the installation of same, and requests for general information regarding the application of the Act.

Sixty permits were issued under the provisions of Section 34 of the Act to owners who were unable to obtain the immediate services of qualified engineers.

I have to report four accident cases during the year, two of which resulted fatally, one being caused through an engineer being caught in the gearing of a steam shovel which was being loaded on a car in the new C.P.R. yards at Edmonton, the second through the collapse of a bridge over the Sturgeon River which resulted in a traction engine being carried through, the engineer in this case being drowned beneath the engine. The other accidents were the bursting of a blow-down tank, severely injuring the engineer in charge, and that of a sight-feed lubricator glass bursting, as a result of which one man lost the sight of an eye.

I have no case of prosecution for violation of the Act to report.

I have the honour to be, Sir,

Your obedient servant,

DAVID FRASER,

District Boiler Inspector.

EDMONTON, January 27th, 1914.

JOHN STOCKS, ESQ.,

Deputy Minister of Public Works,
Edmonton, Alberta.

SIR,—I have the honour to submit my Annual Report as Assistant Inspector of Boilers for the year ending December 31st, 1913, in accordance with Section 8 of the Boilers Act.

I was appointed as Assistant Inspector in the Edmonton District on May 8th, 1913, and accompanied Inspector Fraser for several weeks inspecting boilers in and around Edmonton in order to obtain a thorough understanding of the duties pertaining to this class of work.

From the month of July to the end of the year the whole of my time has been devoted to inspection of boilers, North, East and West of Edmonton for a radius of seventy miles in each direction. In all a total of 148 boilers were inspected during the six months, same being briefly summarized as follows:—

Condition of boilers inspected:—

Good	83
Fair	63
Poor	2
Total	148

Different types inspected:—

Horizontal Tubular	14
Return Tubular	11
Locomotive Firebox	110
Vertical	11
Robb Brady	1
Robb Mumford	1
Total	148

Eight Permits were issued to owners under Section 34 of the Boilers Act to keep plants in operation until the services of properly certified engineers could be obtained.

I have no fatalities, or accident cases of a serious or minor nature to report in connection with the operation of boilers or engines.

I have the honour to be, Sir,

Your obedient servant,

JOHN H. MAINWARING,

Assistant Inspector of Boilers.

MEDICINE HAT, January 8th, 1914.

JOHN STOCKS, ESQ.,

Deputy Minister of Public Works,

Edmonton, Alberta.

SIR,—I have the honour to submit my report as Assistant Inspector of District No. 2, Calgary, for five months ending May, 1913, as required by Section 8 of the Boilers Act.

During Mr. Buxton's absence in Edmonton I held the regular monthly examination on February 1st, and also assisted Mr. Gray with the May examination. The following summary shows total number of applicants examined and details of results:—

Third Class Certificates	6
Provisional Certificates	2
Renewal of Provisional Certificates	4
Total	12

Four Permits were issued to owners under Section 34 of the Boilers Act.

During the five months, I visited 112 boilers and issued Inspection Certificates for 111, one boiler being condemned. Types inspected as follows:—

Horizontal Tubular	14
Locomotive Firebox	17
Water Tube	24
Vertical Fire Tube	50
Air Cylinder	1
Steam Cylinders	6
	112

Condition of these boilers as follows:—

Good	46
Very Fair	58
Fair	7
Condemned	1

In the month of June I was appointed to take charge of the newly formed Inspection District with headquarters at Medicine Hat, and the following covers my work in that district up to December 31st, 1913.

Commencing June 7th, I held the first of the regular monthly examinations, when 29 applicants properly qualified presented themselves with the following results:—

Third Class Certificates	7
Traction Final Certificates	3
2nd Provisional Certificates	2
Provisional Certificates	9
Renewal of Provisional Certificates	6
Final Fireman's Certificates	2
Total	29

Thirty-three permits were issued under Section 34 of the Boilers Act which enables the owners to adjust themselves to special requirements without inconvenience or delay. One conviction was obtained under Section 35, sub. clause 3, and the minimum fine imposed.

During the seven months I visited 169 boilers, several of which had not been inspected for some years owing to their isolated location. The following is a summary of types and condition:—

Horizontal Tubular	30
Locomotive Firebox	103
Water Tube	4
Vertical Fire Tube	28
Vertical Water Tube	1
Cast Iron Sectional	3
Total	169

Condition of these boilers as follows:—

Good	53
Very Fair	95
Fair	17
Condemned	4

The appointment of a District Inspector at this point has been of great benefit to Contractors and Industrial Concerns, ensuring prompt attention and advice concerning the installation and repairs of power, which is much appreciated by owners requiring these services. Also as a point for information and examination for engineers. Such services will, no doubt, be in greater demand in the future, viewing the progress of industry as anticipated in this district.

I have no fatalities or accidents to report.

I have the honour to be, Sir,

Your obedient servant,

E. S. HODGES,

Inspector of Boilers.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
FIRST CLASS			
Archibald, Harry P.	Lethbridge	*24	Aug. 15, 1900
Altham, George H.	Lethbridge	23	Apr. 8, 1908
Aitken, Robert C.	Edmonton	15	June 29, 1907
Alexander, Harry G.	Edmonton	43	Apr. 13, 1907
Brisette, Narcisse	Morinville	*15	Mar. 28, 1889
Buxton Jos.	Calgary	*55	Aug. 29, 1901
Birkett, Holland G.	Cardston	9	Sept. 5, 1906
Briggs, Thos. L.	Calgary	10	Sept. 27, 1906
Birrell, Andrew D.	Nanton	26	Aug. 28, 1908
Banks, Henry H.	Macleod	31	Dec. 14, 1908
Broughton, John Wm.	Red Deer	34	Mar. 17, 1909
Bailey, Hy. Chas.	Edmonton	50	Feb. 11, 1911
Blackburn, Robt. Neale	Edmonton	57	Feb. 10, 1912
Brown, Robt.	Lundbreck	69	Jan. 15, 1913
Benson, Frank H.	N. Edmonton	78	May 3, 1913
Cross, William	Calgary	*2	Mar. 28, 1899
Cooper, Watt	Canmore	6	Aug. 11, 1906
Caldwell, Robert	Edmonton	*41	Oct. 16, 1903
Cross, Isaac E.	Ponoka	*47	Oct. 15, 1904
Cope, Cuthbert E.	Edmonton	24	Apr. 22, 1908
Christie, Alexander G.	Exshaw	19	Jan. 20, 1908
Collard, Albert N.	Moose Jaw	21	Mar. 26, 1908
Carruthers, J. A.	Calgary	51	May 26, 1911
Cunningham, Wm. J.	Calgary	62	Apr. 26, 1912
Cooke, Robert Pears	Edmonton	66	June 21, 1912
Cargill, John F.	Kipp	72	Nov. 10, 1913
Davidson, James	Edmonton	38	Sept. 13, 1909
Davey, Edward	Medicine Hat	44	Apr. 25, 1910
Defieux, Charles Albert	Edmonton	65	June 17, 1912
Dick, Archibald	Lethbridge	64	May 18, 1912
Donnelly, James	Bellevue	77	April 23, 1913
Douglas, John H. W.	Red Deer	70	Jan. 15, 1913
Evans, Dan	Edmonton	*12	Mar. 28, 1899
Ewing, David	Strathcona	36	May 3, 1909
Edwards, William	Lethbridge	48	Nov. 7, 1910
Evans, Harry W.	Anthracite	80	July 10, 1913
Fraser, David	Strathcona	*20	Oct. 9, 1899
Finch, Theodore S.	Raymond	5	Aug. 10, 1906
Gale, Ernest A.	Calgary (dup.)	29	Dec. 11, 1908
Goellnight, Leonard E.	Hillcrest	40	Mar. 30, 1910
Gray, Adam S.	Calgary	82	Nov. 19, 1913
Gray, William G.	Lethbridge	60	Mar. 14, 1912
Griffiths, Alf. J.	Macleod	68	Dec. 17, 1912
Hindsmarsh, Wm.	Calgary	41	Apr. 11, 1910
Hubbard, Sydney T.	Edmonton	*46	Apr. 18, 1904
Heist, Wm. E.	Edmonton	*36	Dec. 18, 1901
Hobson, Francis W.	Strathcona	*50	Apr. 1, 1905
Hill, John	Edmonton	25	June 25, 1908
Hargreaves, Thos. J.	Hillcrest	55	Sept. 9, 1911
Higgins, Alex	Lethbridge	59	Mar. 14, 1912
Hodges, Elmer S.	Medicine Hat	73	Mar. 14, 1913

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
First Class—Continued			
Holmes, Walter C.	Calgary	74	April 21, 1913
Haddock, Sidney G.	Edmonton	71	Jan. 24, 1913
Isaac, Wm.	Calgary	14	June 20, 1907
Jackson, John A.	Strathcona	*25	Oct. 23, 1900
Jones, Herbert W.	Bellevue	30	Dec. 11, 1908
Jacob, Arthur	Royal View	75	April 23, 1913
Kelly, John	Edmonton (no record)		Dec. 3, 1905
Kearsley, George	Edmonton	8	Sept. 5, 1906
Lunn, John T.	Edmonton	*53	May 26, 1905
Moore, George	Frank	*55	July 21, 1905
Marshall, James Wm.	Calgary	20	Jan. 20, 1908
Marshall, Nathaniel	Edmonton	32	Feb. 7, 1908
McCall, James F.	Calgary	7	Aug. 11, 1906
McFee, Norman	Red Willow	*48	Nov. 22, 1904
McNaughton, Peter	Edmonton	*21	Oct. 9, 1899
McMillan, Hugh A.	Edmonton	47	Oct. 22, 1910
Mudie, Alf H.	Diamond City	54	Aug. 24, 1911
Mainwaring, John H.	Edmonton	58	Feb. 23, 1912
McMahon, William	Taber	67	Dec. 17, 1912
McCulloch, Wm. L.	Calgary	81	July 15, 1913
Niven, Robert	Lethbridge	*23	July 28, 1900
O'Donnell, John E.	Edmonton	37	July 5, 1909
Oliver, Ernest H.	Calgary	2	April 30, 1906
Ritchie, Wm. James	Canmore	4	May 15, 1906
Rice, John H.	Calgary	1	April 30, 1906
Reid, Arthur	Lethbridge (dup.	39	Jan. 22, 1910
Richardson, Mathew C.	Kipp	56	Nov. 17, 1911
Ray, Arthur Robert	Edmonton	83	Dec. 17, 1913
Scott, John	Lethbridge	*14	Mar. 28, 1899
Stapely, Tobias B.	Edmonton	*45	April 18, 1904
Stafford, David G.	Coleman	35	Mar. 30, 1909
Scott, James	Lille	22	April 7, 1908
Scott, Robert	Calgary	42	April 11, 1910
Simpson, William	Coleman	52	June 20, 1911
Searle, William	Coal City	53	July 13, 1911
Strom, Theodore	Calgary	63	April 30, 1912
Turgeon, Cleophas	Edmonton	*5	Mar. 28, 1899
Taylor, George R.	Strathcona	*11	Mar. 28, 1899
Turner, Ornelo H.	Calgary	*34	July 1901
Tanner, Harry P.	Taber	18	Dec. 26, 1907
Todd, William	Edmonton	33	Mar. 4, 1909
Tames, Edward	Edmonton	61	April 25, 1912
Taylor, Gilbert	Edmonton	79	May 3, 1913
Verdon, Jos. B.	Calgary	49	Nov. 13, 1910
Watson, Wm. D.	Bankhead	3	May 15, 1905
Watson, John T.	Calgary	13	June 7, 1907

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
First Class—Continued			
White, E. Lionel	Calgary	12	April 6, 1907
Watson, James S.	Bankhead	46	Sept. 23, 1910
SECOND CLASS			
Anderson, C. J. B.	Calgary	*109	Feb. 7, 1901
Angus, Robert	Angus Ridge	*160	Oct. 2, 1901
Alderson, Robert	Coleman	126	April 22, 1908
Adair, Fred D.	Edmonton	30	May 10, 1906
Allworth, E. Mortimer	Okotoks	81	June 19, 1907
Anderson, Andrew	Calgary	208	Aug. 15, 1910
Aitkin, David	Lethbridge	212	Sept. 12, 1910
Antrobus, William	Edmonton	260	Nov. 17, 1911
Brisette, Louis	Morinville	193	April 13, 1910
Bradden, Wm. T.	Strathcona	194	April 13, 1910
Biamont, Antonio	Edmonton	329	Nov. 23, 1912
Brice, Henry B.	Calgary	207	Aug. 8, 1910
Bawlinheimer, George H.	Red Deer	*7	Sept. 4, 1899
Biery, Charles	Strathcona	*32	Mar. 9, 1900
Blatchford, K. A.	Edmonton	*88	Oct. 23, 1900
Blain, J. W.	Strathcona	*106	Dec. 31, 1900
Bannerman, James A.	Red Deer	*162	Dec. 18, 1901
Brownlow, Hy. A.	Lacombe	*163	Dec. 23, 1902
Brewster, W. A.	Edmonton	*195	May 13, 1903
Bowden, H. S.	Strathcona	*198	May 13, 1903
Ballantyne, Robert	Calgary	*229	Mar. 14, 1904
Barnhouse, William	Edmonton	*244	May 26, 1904
Burkholder, Hy J.	Strathcona	*267	Oct. 15, 1904
Beamish, Crandell	Didsbury	118	April 22, 1908
Bentley, Emerson D.	Medicine Hat	17	April 11, 1906
Burger, M. E.	Strathcona	2	Sept. 18, 1905
Baird, James B.	Red Deer	116	April 14, 1908
Bryson, Wm. J.	Medicine Hat	178	Dec. 4, 1903
Blair, William	Lille	25	April 30, 1906
Berry, Stephen	Taber	127	April 22, 1908
Brill, George	Red Deer	161	Aug. 24, 1909
Brown, David	Calgary	75	May 4, 1907
Bruce, George	Lethbridge	114	April 8, 1908
Bagley, Wm. S.	Edmonton	156	June 18, 1909
Broadwell, Amos	Pincher Creek	170	Sept. 24, 1909
Bailey, Douglas A.	Calgary	173	Oct. 22, 1909
Brenton, Charles J.	Edmonton	234	April 1, 1911
Bratz, Emil	Pincher Creek	272	Dec. 19, 1911
Brooks, Fred	Edmonton	259	Nov. 10, 1911
Bailey, W. Edgar	Lethbridge	273	Dec. 19, 1911
Baron, Harry	Diamond City	283	Feb. 26, 1912
Bodard, Alcide	Edmonton	312	Aug. 12, 1912
Beyer, Otto R.	Diamond City	296	May 18, 1912
Readle, Elkanah Wm.	Edmonton	320	Sept. 25, 1912
Buchanan, Wm. E.	Nanton	353	May 15, 1913
Brennan, Fred	Edson	346	April 7, 1913
Blix, John A.	Calgary	349	April 21, 1913
Burchell, James	Edmonton	340	May 7, 1913
Barker, John H.	Edmonton	355	June 21, 1913
Cope, Edmund G. M.	Lethbridge	*1	June 30, 1899
Clark, W. Harold	Edmonton	*15	Oct. 9, 1899
Conn, David	Lethbridge (dup.)	*81	Jan. 19, 1910

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Second Class—Continued			
Chalmers, Walter N.	Edmonton	*51	May 28, 1900
Cullen, James E.	Calgary	*115	Feb. 20, 1901
Converse, Stephen J.	Ponoka	*192	Mar. 6, 1903
Clifford, Robert A.	Strathcona	*197	May 13, 1903
Chapman, A. B.	Red Deer	*239	April 18, 1904
Callery, Frederick	Calgary (dup.)	150	Nov. 10, 1908
Coggan, Frank D.	Calgary	72	June 3, 1907
Cousins, Arthur	Calgary	24	April 30, 1906
Crawford, Samuel L.	Strathcona	52	Oct. 25, 1906
Card, Caleb A.	Red Deer	53	Nov. 2, 1906
Currie, James J.	Calgary	110	Mar. 23, 1908
Caldwell, Theophilus	Calgary	105	Jan. 20, 1908
Cranston, Adam	Calgary	55	Jan. 22, 1907
son, Otto M.	Edmonton	79	June 14, 1907
Collins, Fred M.	Frank	88	July 16, 1907
Campbell, Mal. L.	Earlsville	96	Oct. 28, 1907
Cowall, Cederic A.	Red Deer	100	Dec. 5, 1907
Calder, Hector J.	Calgary	112	Mar. 23, 1908
Carr, Alve B.	Edmonton (dup.)	203	June 2, 1910
Cutting, Charles	Vermillion	130	May 7, 1908
Collard, George Lewis	Medicine Hat	152	Jan. 18, 1909
Croft, William	Strathcona	174	Oct. 27, 1909
Carpenter, Wilfred	Frank	188	Mar. 25, 1910
Cruikshanks, George	Lethbridge	185	Mar. 15, 1910
Commeysne, Florent	Edmonton	300	May 29, 1912
Candlish, William	N. Edmonton	281	Feb. 23, 1912
Craig, Hugh S.	Calgary	321	Sept. 28, 1912
Clark, Gordon	Edmonton, S.	352	May 3, 1912
Costain, John H.	Edmonton	335	Feb. 12, 1912
Chapman, Harold	Carmanagay	337	Feb. 19, 1912
Cameron, Walter R.	Grande Prairie	344	May 15, 1912
Dozey, Charles	Frank	218	Sept. 16, 1910
Duncombe, Walter	Taber	217	Sept. 16, 1910
Donaldson, Maxwell	Lethbridge (dup.)	182	Jan. 19, 1910
Doughty, James	Calgary	*143	July 25, 1901
Dresser, Bertram W.	Wetaskiwin	*261	Oct. 15, 1904
Drader, John A.	Pincher Creek	*290	Dec. 30, 1904
Dean, David	Calgary	*298	Mar. 16, 1905
Drees, Max L.	Edmonton (dup.)	*269	Nov. 30, 1905
Danner, Clifford	Lacombe	22	April 25, 1906
Duncan, Andrew, Sr.	Edmonton	129	May 7, 1908
Dick, Wm.	High River	57	Jan. 14, 1907
Duncan, Andrew, Jr.	Edmonton	139	Sept. 18, 1908
Dunbar, Hy. C.	Edmonton	123	April 22, 1908
Donaldson, Samuel	Lethbridge	164	Sept. 15, 1909
Daley, Wm.	Strathcona	163	Aug. 27, 1909
Dowsett, Nathaniel	Frank	228	Mar. 7, 1911
Davies, Samuel	Elcan	274	Dec. 19, 1911
Davidson, Eric	Calgary	298	May 22, 1912
Downing, Augustus	Calgary	292	April 26, 1912
Davis, John B.	Edmonton	362	Nov. 11, 1913
Dodd, James	Edmonton	356	Aug. 2, 1913
Drummond, John W.	Calgary	354	May 19, 1913
Emery, Ray C.	Strathcona	*264	Oct. 15, 1904
Evans, Wm.	Frank	7	Sept. 18, 1905
Eby, Josiah S.	Didsbury	95	Oct. 24, 1907
Evans, George A.	Raymond	209	Aug. 30, 1910

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Second Class—Continued			
Edmonds, Thos. J.	Edmonton	231	Mar. 20, 1911
Elderkin, Wm. J.	Calgary	248	Aug. 22, 1911
Eldridge, James Thomas	Passburg	285	Mar. 19, 1912
Frieman, Manfred	Lethbridge.....	234	Nov. 4, 1912
Finch, Robert H.	Calgary	*184	Oct. 10, 1902
Fraser, William	Strathcona	*265	Oct. 18, 1904
Frame, Charles F.	Lethbridge.....	*219	Oct. 6, 1903
Fraser, Charles	Okotoks	*300	Mar. 16, 1905
Fidler, J. J.	Calgary (dup.).....	135	Aug. 6, 1908
Fleetwood, Howard A.	Edmonton	*262	Oct. 15, 1904
Fisk, James George	Fort Saskatchewan ...	*307	April 14, 1905
Faulkner, Jos. W.	Lundbreck	42	Aug. 11, 1906
Flan, James Robert	Calgary	85	July 16, 1907
Foote, William	Pincher Creek	87	July 16, 1907
Foster, John Thomas	Calgary	97	Nov. 14, 1907
Foster, Riley	Magrath	297	May 18, 1912
Ferguson, Lilwellyn W.	Strathcona	301	June 28, 1912
Fabian, Henry B.	Tofield	311	July 23, 1912
Grieve, David	Calgary	*111	Feb. 7, 1901
Griffiths, W. H.	Anthracite	31	May 14, 1906
Garneau, Alexander	Strathcona	*266	Oct. 15, 1904
Grieve, William	Calgary	*276	Oct. 28, 1904
Gibbs, Morley C.	Calgary	297	Mar. 16, 1905
Ginter, Wm. C.	Edmonton	18	April 11, 1906
Garner, Anthony	Bankhead	33	May 14, 1906
Godson, Wm.	Bankhead	83	June 26, 1907
Good, William	Calgary	134	Aug. 6, 1908
Going, Philip S.	Mountain View	238	April 24, 1911
Graves, James H.	Calgary	229	Mar. 7, 1911
Grant, Alex	Calgary	250	Sept. 8, 1911
Galloway, Alex	Medicine Hat	361	Oct. 10, 1913
Going, Ernest M.	Mountain View.....	290	April 16, 1912
Gleaves, George N.	Medicine Hat.....	314	Aug. 14, 1912
Gourley, Fred R.	Strathcona.....	316	Aug. 26, 1912
Hennegar, Ed. J.	Edmonton	*19	Oct. 2, 1899
Haines, Alfred H.	Edmonton	*33	May 7, 1900
Hillis, Hy.	Medicine Hat	*42	May 23, 1900
Hicklik, John W.	Calgary	*79	Sept. 29, 1900
Hiscox, Thos. S.	Lethbridge	*85	Sept. 29, 1900
Howell, Edward	Battleford.....	*137	May 30, 1901
Hillis, Thomas	Lethbridge	*172	Aug. 18, 1902
Henneg, Michael	Calgary	*183	Oct. 10, 1902
Heatley, William	Beaumont	*274	Oct. 4, 1904
Henry, Charles	Strathcona	*234	April 18, 1904
Hutchings, H. E.	Edmonton	*306	Mar. 31, 1905
Hackey, Thos. H.	Evarts	117	April 14, 1908
Harper, Wm. H.	Lloydminster	10	Nov. 16, 1905
Heacock, Jas. H.	Calgary	71	June 3, 1907
Hay, George Porter	Pincher Creek	44	Aug. 11, 1906
Howe, Wm. Ed.	Sunny Slope	49	Sept. 8, 1906
Hendry, Wm. A.	Edmonton	64	May 15, 1906
Harris, Samuel D.	Red Deer	62	May 7, 1907
Harris, V. H.	Red Deer	63	May 7, 1907
Hockin, John	Edmonton	91	Oct. 15, 1907
Hill, John	Strathcona	131	May 18, 1908

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Second Class—Continued			
Hill, Marshall	Macleod	189	Mar. 21, 1910
Henry, Walter F.	Ponoka	224	Nov. 15, 1910
Hilton, Wm. H.	Taber	213	Sept. 12, 1910
Howard, Ernest E.	Conjuring Creek	201	June 1, 1910
Horn, James	Lethbridge	187	Mar. 15, 1910
Holford, Jos. C.	Lac Ste. Anne	206	July 29, 1910
Henderson, Norman	Bellevue	230	Mar. 11, 1911
Hope, George	Royal View	286	Mar. 18, 1912
Holmes, George E.	Gleichen	351	April 21, 1913
Hodginsons, Ernest G.	Calgary	350	April 21, 1913
Irwin, Lester J.	Strathcona	*270	Oct. 15, 1904
Irving, Albert E.	Calgary	56	Jan. 22, 1907
Irvine, Alexander	Calgary	165	Sept. 15, 1909
Inglis, George	Edmonton	266	Dec. 12, 1911
Judd, David H.	Calgary	*161	Oct. 5, 1901
Jarratt, Edward	Strathcona	*263	Oct. 15, 1903
Jackson, James O.	Inga	60	April 8, 1907
Johnson, Pontus	Lewisville	235	April 5, 1911
Jack, William	Bassano	246	June 30, 1911
Jones, Joseph S.	Ponoka	847	June 17, 1913
Kerr, William	Lethbridge (dup)	183	Jan. 19, 1910
Kidd, Frederick	Calgary	62	June 14, 1900
Kowalczyk, Antoine	St. Paul de Metis	*144	Feb. 16, 1900
Kadlec, J. J.	Wetaskiwin	*236	April 18, 1904
Killam, Robert C.	Red Deer	65	May 20, 1907
Keith, Edward C.	Lille	226	Dec. 8, 1910
Krammer, Frank	Calgary	293	May 1, 1912
Livingstone, James C.	Lethbridge	214	Sept. 12, 1910
Lang, James	Okotoks	*301	Mar. 17, 1905
Lacey, William R.	Calgary	*182	Oct. 10, 1902
Lamb, Herb David	Frank	41	Aug. 11, 1906
LeBreton, Gustav A.	Edmonton	*308	April 14, 1905
Long, John	Okotoks	45	Oct. 11, 1906
Laut, John R.	Crossfield	153	April 8, 1909
LaVoi, Frank P.	Calgary	111	Mar. 23, 1908
Lavelle, Patrick	Exshaw	149	Oct. 30, 1908
Lewis, John H.	Lethbridge	166	Sept. 15, 1909
Langstroth, Alf.	Calgary	240	May 5, 1911
Lord, Victor H.	Diamond City	244	May 26, 1911
Letcher, Richard	Hillcrest	255	Oct. 24, 1911
Libby, Malcolm M.	Edmonton	271	Dec. 15, 1911
Laundy, Harry	Edmonton	325	Nov. 6, 1912
Large, Eugene	Frank	343	Mar. 14, 1913
Moran, Austin	Lethbridge	36	Mar. 23, 1900
Marshall, Fred Jos.	Kamloops, B. C.	*203	Aug. 14, 1902
Morrison, John C.	Gleichen	*214	Sept. 24, 1903
Mortimer, Samuel M.	Strathcona	*214	May 26, 1904
Murray, Robinson	Calgary	104	Jan. 20, 1908
Merres, Horace	Red Deer	93	Oct. 22, 1907
Mjolness, John A.	Medicine Hat	16	April 11, 1906
Mauland, Jack	Bankhead	99	Dec. 5, 1907
Morrison, Kenneth	Coleman	20	April 19, 1906
Mair, Robert B.	Strathcona	37	Aug. 8, 1906

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Second Class—Continued			
Morgan, Thos. M.	High River	38	Aug. 7, 1906
Moore, Wm. A.	Red Deer	137	Aug. 13, 1908
Mueller, Karl F.	Lethbridge	333	Feb. 11, 1913
McKay, Daniel	Lethbridge	*4	June 30, 1899
McGee, Thomas	White Fish Lake (dup)	113	Mar. 28, 1908
McConnell, Wm. J.	Lethbridge	*	Oct. 8, 1903
McIntyre, John	Calgary (dup.)	48	Aug. 16, 1906
McKim, Nelson	Edmonton	14	Mar. 26, 1906
McClafin, W. G.	Ponoka	*237	April 18, 1904
McCardia, Samuel	Edmonton	78	June 14, 1907
McLean, Frederick A.	Edmonton	*305	Mar. 31, 1905
McNeilly, S.	Okotoks	107	Mar. 23, 1908
McDonald, Simon	Frank	15	Mar. 28, 1906
McDonald, E. R.	Edmonton	120	April 22, 1908
MacDonald, Alex	Edmonton	119	April 22, 1908
McDonald, John D.	Hillcrest	61	April 18, 1907
McNeil, Nell S.	Calgary	68	May 23, 1909
McKinon, Alex J.	Lille	82	June 20, 1907
McIntyre, Joseph	Taber	84	July 8, 1907
McGregor, John	Hillcrest	90	Sept. 26, 1907
McNichol, John	Exshaw	103	Jan. 3, 1908
McFayden, John C.	Edmonton	124	April 22, 1908
McIndoe, Wm.	Calgary	136	Aug. 6, 1908
McDonald, John	Lille	172	Oct. 5, 1909
McNair, Arod N.	Lethbridge	175	Nov. 13, 1909
McIvor, Wm. K.	Edmonton	196	April 13, 1910
McAffer, Ronald	Medicine Hat	221	Sept. 24, 1910
McCauley, James	Edmonton	264	Nov. 30, 1911
McKenzie, Norman	Calgary	242	May 20, 1911
McKenzie, Harvey K.	Lethbridge	275	Dec. 19, 1911
McLeod, Herdman	Coleman	302	June 28, 1912
McDonald, John A.	Calgary	327	Nov. 13, 1912
McAuley, Gus Wallace	Coleman	326	Nov. 13, 1912
Munro Claud	Lethbridge	317	Sept. 17, 1912
Morton, Wm. Johnston	Edmonton	308	June 28, 1912
Murray, James H.	Bankhead	360	Nov. 8, 1913
Markle, Wilbert H.	Calgary	332	Jan. 15, 1913
Nimmons, Robert	Lethbridge	*38	Mar. 23, 1900
Nicholson, Robert John	Edmonton	67	Mar. 20, 1907
Nuttall, Reginald	Edmonton	291	April 25, 1912
Noble, Alex John	Edmonton	348	April 17, 1913
Oxley, John	Taber	6	Sept. 18, 1905
Olson, Harold P. T.	Calgary	276	Dec. 28, 1911
O'Neil, Edward T.	Edmonton	319	Sept. 20, 1912
Oliver, Alonzo	Edmonton	336	Feb. 12, 1913
Parcels, Timothy E.	Red Deer	6	Sept. 4, 1899
Payzant, Ernest M.	Edmonton	*12	Oct. 9, 1899
Pratt, George	Edmonton	*16	Oct. 9, 1899
Pearce, Abraham	Edmonton	*52	May 28, 1904
Pugh John	Calgary	28	April 30, 1906
Powers, Thomas E.	Strathcona	*246	May 26, 1904
Potter, Martin	Evarts	51	Oct. 5, 1906
Punnett, Lewis L.	Chesterwold	50	Oct. 4, 1906
Pallot, Herbert J.	Edmonton	144	Sept. 28, 1908
Payzont H. C.	Edmonton	121	April 22, 1908
Price, John	Edmonton	54	Dec. 19, 1906

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Second Class—Continued			
Patterson, John M.	Okotoks	108	Mar. 23, 1908
Prince, John E.	Calgary	76	June 4, 1907
Purvis, John	Calgary	106	Feb. 15, 1908
Poole, Fred P.	Strathcona.....	132	July 9, 1908
Pollock, Daniel R.	Calgary	151	Dec. 2, 1908
Pearson, Augustus.....	Bellevue.....	210	Sept. 7, 1910
Potter, John.....	Calgary	184	Mar. 7, 1910
Pitts, Wm. S.	Edmonton	180	Jan. 10, 1910
Pallot, Harold E.	Edmonton	191	April 6, 1910
Payne, George	Lethbridge.....	223	Oct. 20, 1910
Petrie, Robert F.	Elcan.....	219	Sept. 16, 1910
Patterson, Samuel F.	Granum.....	254	Oct. 18, 1911
Pollitt, Nicholas T.	Taber.....	247	July 13, 1911
Pearce, William C.	Edmonton.....	249	Aug. 24, 1911
Pollock, Frederick.....	Edmonton.....	253	Sept. 9, 1911
Palmer, John C.	Edmonton.....	262	Nov. 28, 1911
Peterson, J. Anderson.....	Edmonton.....	263	Nov. 29, 1911
Parken, Joseph.....	Carmen.....	288	April 4, 1912
Parsons, Alfred J.	Royal City	318	Sept. 17, 1912
Reed, R. W.....	Lethbridge.....	*5	June 30, 1899
Richards, Hy. John	Canmore.....	*30	Feb. 13, 1900
Rankin, Thomas Hy.....	Banff.....	*77	Sept. 29, 1900
Roberts, Wm. B.	Fort Saskatchewan	*235	May 18, 1904
Ritchie, Wm. A.	Calgary	141	Sept. 22, 1908
Rich, John H.	Calgary	69	June 3, 1907
Reiton, Ole	Lethbridge.....	115	April 8, 1908
Riddell, Arthur.....	Calgary	140	Sept. 22, 1908
Rice, Robert	Calgary	222	Oct. 11, 1910
Richardson, Thos.	Calgary	220	Sept. 23, 1910
Rennie, Thomas	Millet.....	265	Dec. 8, 1911
Ross, Dexter A.	Strathcona.....	306	June 28, 1912
Ryan, Harry	Frank.....	313	Aug. 12, 1912
Richardson, Ernest.....	Calgary	299	May 22, 1912
Rush, Clyde E.	Burmis	338	Feb. 19, 1913
Schatz, Wm. H.	Strathcona.....	*17	Oct. 19, 1899
Shaw, M. W. S.	Midnapore.....	*27	Dec. 1, 1899
Stafford, George.....	Lethbridge.....	160	Aug. 20, 1909
Steven, Hutton.....	Calgary	*43	April 17, 1900
Stagg, George.....	Calgary	*112	Feb. 7, 1901
Steven, Alfred E.	Calgary	*113	Feb. 7, 1901
Shelley, Henry James.....	Calgary	*116	Mar. 12, 1901
Sloan, William	Lethbridge.....	*169	July 30, 1902
Siemens, Peter.....	Anthracite	34	May 14, 1906
Stewart, John A.	Red Deer	12	Jan. 2, 1906
Shannon, Jas.	Calgary	*223	Nov. 6, 1903
Shackleton, Thos. A.	Kamloops.....	*224	Nov. 14, 1903
Starkey, George J.	Ponoka.....	9	Nov. 2, 1905
Stokes, Robert D.	Strathcona.....	19	April 11, 1906
Stacey, Frederick H.	Edmonton.....	1	Sept. 18, 1905
Shore, John P.	Edmonton.....	3	Sept. 18, 1905
Slingsby, Sidney	Calgary	74	June 3, 1907
Stanley, Charles H.	Bankhead.....	32	May 14, 1906
Sefton, Frederick	Lethbridge.....	39	Aug. 10, 1906
Stanley, Benj. F.	Calgary	47	Aug. 14, 1906
Syer, Thos. M.	Red Deer.....	94	Oct. 22, 1907
Stockdale, Thos D.	Lethbridge.....	133	July 31, 1908
Simpson, Wm.	Coleman.....	167	Sept. 18, 1909

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Second Class—Continued			
Sparber, Charles H.	Lethbridge.....	177	Nov. 24, 1909
Searle, William	Coal City	179	Dec. 4, 1909
Simondson, Hy.	Northern.....	197	April 13, 1910
Smith, Frederick	Coleman.....	215	Sept. 12, 1910
Schaumleffel, Clifford C.	Lloydminster.....	192	April 6, 1910
Steven, John C. S.	Edmonton.....	204	June 22, 1910
Smith, Wm. J.	Milk River	225	Nov. 17, 1910
Scott David S.	Coleman.....	256	Oct. 24, 1911
Simpson, John T.	Coleman.....	252	Sept. 8, 1911
Sinclair, Walter W. P.	Medicine Hat	236	April 12, 1911
Saunders, Michael J.	Cardiff.....	267	Dec. 12, 1911
Seymour, Francis E.	Macleod	257	Oct. 24, 1911
Stobbs John	Lethbridge.....	251	Sept. 9, 1911
Sowerby, William N.	Taber.....	258	Oct. 24, 1911
Stephenson, John Leach.....	Lethbridge.....	239	April 24, 1911
Stephenson, Harry.....	Medicine Hat.....	245	June 20, 1911
Singer, William George.....	Edmonton.....	270	Dec. 12, 1911
Stirling, James.....	Michel	287	Mar. 18, 1912
Spargo, John.....	Edmonton.....	277	Jan. 12, 1912
Stratton, Claude.....	Edmonton.....	310	July 22, 1912
Shaw, Thomas.....	Edmonton.....	295	May 14, 1912
Shaw, Oliver E.	Lethbridge.....	339	Feb. 19, 1913
Smith, Ekin H.....	Edmonton.....	358	Sept. 25, 1913
Tabacchi, Stephen.....	Lethbridge.....	186	Mar. 15, 1910
Toreson, Thomas.....	Wetaskiwin.....	*31	Mar. 7, 1900
Thompkins, Peter	White Fish Lake.....	*98	Nov. 27, 1900
Tasker, Henry A.	Nanton.....	148	Oct. 15, 1908
Taddrew, Henry P.	Edmonton.....	29	May 10, 1906
Turner, Duncan	Edmonton.....	98	Nov. 26, 1907
Thorley, James.....	Taber.....	101	Dec. 26, 1907
Turner, Stephen F.....	Taber.....	102	Dec. 26, 1907
Terry, Frank A.	Strathcona.....	171	Dec. 29, 1909
Taylor, Percy E.....	Taber.....	145	Oct. 6, 1908
Thompson, James	Innisfail.....	162	Aug. 24, 1909
Turner, James Abbot.....	Taber.....	304	June 28, 1912
Thomas, David Rees	Lethbridge.....	328	Nov. 13, 1912
Todd, William.....	Edmonton.....	357	Aug. 21, 1913
Tupper, Leon H.	St. Albert	345	Mar. 26, 1913
VonWendel, Carl	Calgary	*222	Nov. 6, 1903
Van Haast, Julius H.	Strathcona.....	*278	Nov. 5, 1904
Voss, Edwin E.	Fort Saskatchewan ..	128	May 7, 1908
Vincent, Robert G.	Blairmore	155	May 26, 1909
Varden, Anthony L.	Edmonton.....	158	July 5, 1909
Von Keekem, Barend J.	Medicine Hat	237	April 12, 1911
Vaughan Wm. Lyle.....	Calgary	243	May 20, 1911
Varlow, Hy. John	Edmonton.....	268	Dec. 12, 1911
Walker, J. B.	Lethbridge.....	*3	June 30, 1899
Watson, Ernest P.	Strathcona.....	*18	Oct. 9, 1899
White, James.....	Canmore	*73	Sept. 5, 1900
Websdale, Francis	Edmonton.....	*139	June 21, 1901
Waldock, John G.	Medicine Hat	*170	Aug. 18, 1902
Waddell, O. S.	Edmonton.....	*245	May 26, 1904
Wright, George W.	Calgary	73	June 3, 1907
Wilcox, James E.	Coleman.....	125	April 22, 1908
Williams, John	Edmonton.....	23	April 30, 1906

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Second Class—Continued			
Wilson, R. J.	High River	80	June 19, 1907
Webb, James F.	Exshaw	143	Sept. 22, 1908
Walker, Thomas	Coleman	46	Aug. 14, 1906
Wilkinson, Robert	Calgary	142	Sept. 22, 1908
Walker, Rolf A.	Edmonton	205	July 16, 1910
Warr, Percy J. H.	Lethbridge	227	Dec. 8, 1910
Winter, Archibald	Strathcona	202	June 1, 1910
Walton, John W.	Edmonton	233	Mar. 31, 1911
Willis, Robert I.	Edmonton	269	Dec. 12, 1911
Ward John	Edmonton	330	Dec. 13, 1912
Wood, James	Bellevue	279	Jan. 16, 1912
Will, Frank Silver	Edmonton	284	Mar. 14, 1912
Williams, Richard	Medicine Hat	289	April 6, 1912
White, William	Lethbridge	305	June 28, 1912
Weir, John	Edmonton	307	June 28, 1912
Warburton, John	Spring Point	359	Oct. 17, 1912
Watson, Frederick	Bankhead	360	Dec. 17, 1912
Wright, Thomas	Calgary	342	Mar. 14, 1912
Young, George	Lille	43	Aug. 11, 1906
Zurlinder, John	Calgary	138	Sept. 14, 1908
THIRD CLASS			
Albertson, Andrew O.	Strathcona	*135	June 25, 1901
Aikman, George	Calgary	*274	Sept. 11, 1902
Allan, Albert	Edmonton	*360	May 3, 1903
Allan, Arthur	Edmonton	*526	April 18, 1904
Ashcroft Joseph	Lethbridge	*673	Nov. 24, 1904
Akey, Charles S.	Iowalta	*759	Mar. 24, 1905
Archibald, Chester H.	Wetaskiwin	*786	Mar. 27, 1905
Ambler, David	Wetaskiwin	*790	Mar. 27, 1905
Anderson, Andrew Wm.	Wetaskiwin	*794	Mar. 27, 1905
Adair, James E.	Edmonton	263	April 18, 1907
Agar, Charles	Edmonton	143	May 29, 1906
Adshead Herb B.	Olds	149	May 31, 1906
Anderson, John J.	Stavely	192	Aug. 13, 1906
Alexander, J. A.	Livingstone	203	Aug. 13, 1906
Abraham, W. R.	Lacombe	242	Sept. 28, 1906
Adams, David C.	Edmonton	307	Sept. 8, 1906
Auld, John	Edmonton	266	April 30, 1907
Anderson, G. A.	Bowden	318	May 29, 1907
Anderson, James J.	Crossfield	324	May 29, 1907
Anstett, Frank A.	Langdon	337	June 4, 1907
Andrews, W. H.	Stewartwyn	364	June 7, 1907
Adams, Charles W.	Lacombe	367	June 7, 1907
Antrobus, William	Edmonton	386	June 14, 1907
Anderson, Henry	Rosenroll	393	June 14, 1907
Anderson, William	Killam	399	June 14, 1907
Anderson, Ed A.	Heatherbrae	402	June 14, 1907
Ambler, Geo. D.	Wetaskiwin	411	June 14, 1907
Allan, Harold	Calgary	563	Jan. 30, 1908
Amdahl, Theo. J.	Seven Persons	2516	April 15, 1915
Archibald, Syl C.	Ferry Bank	691	May 5, 1908
Alveberry, Fred S.	Wetaskiwin	699	May 7, 1908
Atterbury, Charles J.	Edmonton	733	Sept. 18, 1908
Asper, A.	Merna	782	Sept. 18, 1908

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Ashcroft, John	Lethbridge	844	Oct. 6, 1908
Anderson, Aitken, McK.	Calgary	811	Mar. 19, 1909
Adring, Tom	Lethbridge	898	Mar. 24, 1909
Atkins, Ralph P.	New Dayton	899	Mar. 24, 1909
Aveidson, August	Sunny Slope	906	Mar. 26, 1909
Annabel, Bolton A.	Claresholm	965	April 16, 1909
Anderson, Edward	Sterling	988	April 20, 1909
Aldridge, Oliver	Cardston	1005	April 25, 1909
Arrison, Orrin S.	Gleichen	1017	April 28, 1909
Anderson, Orile H.	Sterling	1109	Sept. 15, 1909
Adams, Daniel P.	Lacombe	1173	Oct. 13, 1909
Ashburner, Edward	Lethbridge	1214	Mar. 15, 1910
Alspach, Wm. L.	Stavely	1273	Mar. 29, 1910
Anderson, Alex	Granum	1280	Mar. 30, 1910
Anderson, John H.	Round Hill	1283	April 1, 1910
Atkins, C. C. L.	New Dayton	1356	April 14, 1910
Anderson, George H.	Barnwell	1367	April 15, 1910
Aaring, Ben	Burdett	1377	April 19, 1910
Allen, Ewart G.	Medicine Hat	2173	April 23, 1912
Ansley, Harvey, R. B.	Medicine Hat	1390	April 25, 1910
Allen, Richard	Lethbridge	1421	June 11, 1910
Aitkin, James	Lethbridge	2055	Mar. 13, 1912
Alan, Robert	Calgary	1519	Sept. 23, 1910
Alger, George V.	Medicine Hat	2174	April 23, 1912
Ameson, Sigurd A.	Eagle Hill	1550	Oct. 1, 1910
Atkinson, Wm. E.	Claresholm	1641	Mar. 15, 1911
Atkinson, Louis E.	Claresholm	1642	Mar. 16, 1911
Arbuster, John	Stony Plain	1694	Mar. 31, 1911
Aitcheson, George	Green Lawn	1695	Mar. 30, 1911
Ainsley, Wm. G.	Cashaw	1712	April 5, 1911
Anderberg, Claus E.	Bassano	1849	June 13, 1911
Anderson, Victor	Granum	1874	July 13, 1911
Allen, Richard	New Dayton	1974	Oct. 24, 1911
Allen, Richard	New Dayton	2418	Nov. 13, 1912
Atkinson, Thomas	Little Volga	1987	Nov. 10, 1911
Arm, William F.	Lethbridge	2032	Feb. 14, 1912
Anderson, Carl	Taber	2056	Mar. 13, 1912
Albert, Max	Berseker	2123	April 4, 1912
Audland, Andrew	Carlstadt	2124	April 4, 1912
Allender, Loren L.	Lille	2242	May 2, 1912
Albertson, P. L.	Edmonton	2327	July 16, 1912
Armstrong, Alex	Red Deer	2396	Oct. 16, 1912
Allen, James Hy	Calgary	2450	Jan. 15, 1913
Antrobus, James	Coleman	2469	Feb. 19, 1913
Anderson, Frank	Calgary	2526	April 21, 1913
Blatchford, Peter	Edmonton	*37	Nov. 28, 1899
Bawtinheimer, H. E.	Red Deer	*185	Dec. 18, 1901
Billo, Joseph	Edmonton	*193	Dec. 18, 1901
Bernier, Alexis	Lamoureux	*205	Dec. 18, 1901
Berlinguette, Alfred	Whitford	*255	Aug. 18, 1902
Burwell, Arthur P.	Edmonton	*354	April 24, 1903
Berg, John	Fort Saskatchewan	*356	May 13, 1903
Bolduc, Joseph	Beaumont	*362	May 13, 1903
Bowers, Richard J.	Strathcona	*364	May 13, 1903
Briggs, M. R.	Red Deer	*371	May 13, 1903
Bricker, Menno C.	Okotoks	*471	Nov. 6, 1903
Brown, Robert S.	Lamoureux	*480	Jan. 15, 1904
Burbank, Lyle A.	Calgary	*483	Feb. 10, 1904

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Billow, Adolph	Caumore	*486	Mar. 14, 1904
Bailey, R. B.	Edmonton	*527	April 18, 1904
Brenton, J. R.	Edmonton	*544	April 18, 1904
Bolduc, Peter	Beaumont	*638	Oct. 15, 1904
Bevington, George E.	Strathcona	*642	Oct. 15, 1904
Browne, Thos. J.	Medicine Hat	*83	April 9, 1906
Brown, John Jr.	Innisfail	*757	Mar. 24, 1905
Bruce, Charles R.	Lacombe	*761	Mar. 24, 1905
Blewett, Wm. G.	Mewassin	*818	April 14, 1905
Bauclin, Theophile	Legal	*214	Aug. 14, 1906
Brunelle, John	Beaumont	*821	April 14, 1906
Brodie, Wm. A.	Ponoka	*848	May 30, 1905
Blanchette, Peter	Fort Saskatchewan	257	Dec. 28, 1906
Bradbeer, Edward	Lethbridge	14	Sept. 16, 1905
Bilson, Wm. Jas.	Lethbridge	2513	April 9, 1914
Baker, Charles L.	East Clover Bar	27	Sept. 16, 1905
Bittner, Anton	Ponoka	56	Nov. 11, 1905
Bell, Harry	Daugh	71	Mar. 16, 1906
Baker, Thomas	Calgary	72	Mar. 19, 1906
Boote, Edward	Pine Lake	107	April 24, 1906
Bodman, John A.	Calgary	885	Mar. 18, 1909
Bartlett, Percy R.	Edmonton	142	May 29, 1906
Burns, David	Grassy Lake	170	Aug. 11, 1906
Baden, Wm. F.	High River	196	Aug. 13, 1906
Benz, August J.	Mundare	216	Sept. 13, 1906
Bates, Minor	Strathcona	2357	July 19, 1912
Brown, A. J.	Wavy Lake	232	Sept. 21, 1906
Bucher, L. W.	Wetaskiwin	273	May 15, 1907
Berg, John P.	Wetaskiwin	280	May 15, 1907
Barr, Ralph	Edmonton	286	May 15, 1907
Beggs, John	Innisfail	295	May 20, 1907
Buckton, Henry J.	Olds	302	May 23, 1907
Bugton, Ole G.	Harmattan	304	May 23, 1907
Bergen, Jacob	Didsbury	319	May 29, 1907
Bush, Frank C.	Didsbury	323	May 29, 1907
Barker, Wm. L.	Calgary	343	June 4, 1907
Brotherston, Robert A.	Calgary	345	June 4, 1907
Barnes, Wm. J.	Calgary	346	June 4, 1907
Brown, Wilfred B.	Calgary	359	June 4, 1907
Bush, Henry	Blackfalds	366	June 7, 1907
Brereton, Thos. A.	Valley City	376	June 7, 1907
Brown, Wm. H.	Edmonton	385	June 14, 1907
Berry, Robert G.	Fort Saskatchewan	392	June 14, 1907
Bradbury, Arthur T.	Edberg	398	June 14, 1907
Batke, Albert L.	Ferry Point	417	June 14, 1907
Bucker, Walter L.	Mossleigh	424	June 19, 1907
Brower, Archibald B.	Fincher Creek	928	April 1, 1909
Black, Robert	Strathcona	479	July 24, 1907
Boomer, Marshall	Blackfalds	481	July 27, 1907
Bowman, Albert	Strathcona	485	Aug. 28, 1907
Brickman, Joseph T.	Pembina	495	Oct. 15, 1907
Bell, Wm. G.	Red Deer	515	Oct. 22, 1907
Bergen, Henry	Didsbury	527	Oct. 24, 1907
Burchnell, Frank N.	Bluff Centre	543	Oct. 28, 1907
Bawslaugh, John J.	Calgary	559	Jan. 20, 1908
Burwell, Wm.	Gladys	569	Mar. 23, 1908
Blair, Geo. R.	Claresholm	570	Mar. 23, 1908
Base, John L.	Reid Hill	572	Mar. 23, 1908
Bell, Wm. F.	High River	573	Mar. 23, 1908

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Blackorby, W. G.	Claresholm.....	575	Mar. 23, 1908
Bowerman, Cliff	Cowley	599	April 8, 1908
Banfield, J. Frank	Lethbridge	626	April 9, 1908
Bryant, Percy B.	Lethbridge	627	April 9, 1908
Brown, John	Evarts.....	635	April 14, 1908
Beckett, Waitland J.	Red Deer	636	April 14, 1908
Brubaker, Albert J.	Medicine Hat.....	1376	April 18, 1910
Burke, Benj. S.	Lacombe.....	693	May 6, 1908
Bader, Benj. H.	Lethbridge	704	May 14, 1908
Bateman, Ewart W.	Lethbridge.....	744	Aug. 6, 1908
Baxter, John	Red Deer	751	Sept. 3, 1908
Blacklock, Robert O.	Westward Ho	754	Sept. 8, 1908
Butts, John H.	Olds	755	Sept. 8, 1908
Brooke, Frederick C.	Olds	759	Sept. 11, 1908
Ball, Arthur	Mayville	767	Sept. 14, 1908
Burns, William	Higgins	768	Sept. 14, 1908
Bowick, Charles C.	Tofield	810	Sept. 28, 1908
Bowick, John D.	Tofield	811	Sept. 28, 1908
Brown, John	Kitscoty.....	812	Sept. 28, 1908
Brainard, Jerome W.	Nanton	824	Oct. 2, 1908
Bowler, Thomas H.	Macleod	845	Oct. 6, 1908
Benjamin, Albert	Morinville	862	Oct. 20, 1908
Bucknam, Artliff V.	Bucknam	2637	Oct. 22, 1913
Brenton, Chas. J.	Edmonton	871	Dec. 23, 1908
Bannerman, Wm.	Red Deer	*189	Dec. 18, 1901
Boomer, Alonzo	Lacombe	57	Nov. 22, 1905
Bartholomew, Claude D.	Morinville	886	Mar. 13, 1909
Barley, Charles	Mountain House	887	Mar. 20, 1909
Bratz, Emil	Pincher Creek	1626	Mar. 11, 1911
Bessey, Alfred	Stettler	961	April 13, 1909
Bell, David J.	High River	966	April 16, 1909
Bailey, George	Magrath	994	April 22, 1909
Burton, Edar W.	Calgary	1004	April 23, 1909
Bell, Andrew J.	Shepard	1018	April 28, 1909
Brantz, Albert A.	Mewassin.....	1036	April 28, 1909
Baumbach, John	Irvine	1046	May 1, 1909
Bishop, Frank E.	Medicine Hat.....	1047	May 1, 1909
Barnes, Edward	Edmonton	1061	May 21, 1909
Brown, George C.	Edmonton	1077	May 26, 1909
Bakken, Nels O.	Iron Springs.....	1078	May 28, 1909
Benson, Roy	Calgary	1080	June 8, 1909
Baker, Bernard S.	Nanton	1115	Sept. 21, 1909
Burr, John C.	Calgary	1116	Sept. 21, 1909
Betton, Thos. W.	High River	1140	Sept. 21, 1909
Boyle, James E.	Blairmore	1684	Mar. 29, 1911
Bercyz, Julius	Edmonton	1976	Oct. 24, 1911
Benson, George	Taber	1151	Sept. 28, 1909
Bjor, Frank	Calmar	1158	Sept. 29, 1909
Black, Andrew	Edmonton	1171	Oct. 9, 1909
Bradley, Harold R.	Wetaskiwin.....	1176	Nov. 5, 1909
Barley, Jack E.	Edmonton	1181	Nov. 16, 1909
Burness, Hy	Edmonton	1191	Jan. 10, 1910
Bouyea, Arthur	Calgary	1193	Feb. 3, 1910
Berwick, Albert E.	Red Deer	1196	Mar. 4, 1910
Beamer, Frank A.	Calgary	1203	Mar. 7, 1910
Bishop, Harvey M.	Calgary	1204	Mar. 7, 1910
Blackstock, John	Calgary	1204	Mar. 7, 1910
Bonieman, William	Lethbridge	1215	Mar. 15, 1910

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Buchring, William	Winnifred	1216	Mar. 15, 1910
Barbin, M. J.	Coaldale	1217	Mar. 15, 1910
Baker, Thomas R.	Magrath	1218	Mar. 15, 1910
Beatty, Ed. S.	Lethbridge	1219	Mar. 15, 1910
Bryant, Arthur	Lethbridge	1220	Mar. 15, 1910
Brown, Thomas	Frank	2069	Mar. 18, 1912
Baird, Sam	Blairmore	1625	Mar. 11, 1911
Bochnlein, Galuss J.	Macleod	1636	Mar. 15, 1911
Buck, Herbert W.	Kitscoty	1302	April 6, 1910
Buckler, Eric W.	Black Diamond	1322	April 8, 1910
Buck, Alphalus B.	Okotoks	1323	April 8, 1910
Brown, Archie B.	Acme	1334	April 11, 1910
Bowman, Elra	Halkirk	1284	April 1, 1910
Bonallo, Herbert D.	Calgary	1381	April 21, 1910
Bonallo, Keir	Calgary	1382	April 21, 1910
Babe, Richard	Whitla	1391	April 25, 1910
Byron, J. Hercule	Edmonton	1417	May 13, 1910
Barr, John	Calgary	1418	June 2, 1910
Bent, Wm. K.	Coleman	1441	July 14, 1910
Bryce, William	Davisburg	1485	Sept. 6, 1910
Bree, Ernest N.	Edmonton	1491	Sept. 13, 1910
Burton, Francois J.	Edgerton	1492	Sept. 16, 1910
Bratvold, Oscar	Dina	1493	Sept. 16, 1910
Barstad, Sanders E.	Lee Creek	1494	Sept. 16, 1910
Brattell, James E.	Calgary	1520	Sept. 23, 1910
Brown, George J.	Granum	1539	Oct. 3, 1910
Brubaker, Jonas	Mayton	1551	Oct. 17, 1910
Barrett, Alfred	Ponoka	1556	Oct. 17, 1910
Burton, Frederick H.	Strathcona	1559	Oct. 19, 1910
Brown, Frederick H.	Medicine Hat	1563	Oct. 20, 1910
Brown, Robert	Lundbreck	1575	Oct. 20, 1910
Bradley, Harold	Bassano	1579	Nov. 14, 1910
Byers, Elmer L.	New Dayton	1858	June 20, 1912
Byers, Elmer L.	New Dayton	1583	Nov. 17, 1910
Bailey, Evans	Coleman	1776	April 24, 1911
Bailey, Evans	Coleman	1584	Nov. 17, 1910
Bridge, Ray C.	Calgary	1590	Dec. 8, 1910
Borows, William	Lethbridge	2244	May 1, 1912
Bond, Newton	Mannville	1593	Dec. 10, 1910
Bowerman, Cliff	Cowley	1635	Mar. 15, 1911
Brouse, Jason W.	Calgary	1608	June 23, 1911
Bergman, Jos. A.	Lethbridge	1610	Mar. 7, 1911
Bennett, Fred C.	Hillcrest	2072	Mar. 18, 1912
Brubaker, Isaac	Airdrie	1646	Mar. 20, 1911
Brown, John E.	Calgary	1647	Mar. 20, 1911
Bye, Martin	Lillico	1670	Mar. 24, 1911
Bullman, John E.	Warner	1685	Mar. 29, 1911
Berrigan, Steve	Bassano	1671	April 19, 1911
Brougham, Wm. J.	Calgary	1762	April 19, 1911
Bennifield, John G.	Rosyth	1713	April 5, 1911
Broahen, Wm. H.	Medicine Hat	1731	April 7, 1911
Ballew, George L.	Medicine Hat	1750	April 15, 1911
Baumbach, Jacob I.	Irvine	1751	April 15, 1911
Burnett, Elmer	Taber	1777	April 24, 1911
Braumberger, Fred C.	Berseker	1801	May 6, 1911
Barnes, Joseph	Bassano	1817	May 20, 1911
Bell, John F.	Lethbridge	1825	May 26, 1911

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	DATE OF SUE
Third Class—Continued			
Berg, Carl M.	Calgary	1848	June 13, 1911
Bradshaw, R. Davis	Edmonton	1868	June 21, 1911
Bennett, Wm. D.	Strathmore	1879	July 15, 1911
Bowler, Herbert A.	Edmonton	1888	Aug. 16, 1911
Branning, L. E.	Bow Island	1906	Aug. 24, 1911
Burns, Robert W.	Holmglen	1926	Sept. 27, 1911
Bartman, Geo. V.	Castor	1927	Sept. 7, 1911
Butters, Hy. G.	Airdrie	1931	Sept. 7, 1911
Bowen, Robert	Strathcona	1953	Sept. 9, 1911
Baiers, Peter	Edmonton	2593	June 21, 1913
Boler, Thomas A.	Keoma	1967	Oct. 20, 1911
Blades, George	Stirlingville	1968	Oct. 20, 1911
Braithwaite, Harry	Lethbridge	1975	Oct. 24, 1911
Blake, James H.	Calgary	2005	Dec. 2, 1911
Brown, William	Coleman	2071	Mar. 18, 1912
Briggs, Myron W.	Barons	2090	Mar. 22, 1912
Boisvert, Antoine A.	Legal	2095	Mar. 25, 1912
Bruce, George B.	Cardiff	2096	Mar. 25, 1912
Barnum, Louis O.	Acme	2108	Mar. 28, 1912
Baker, Elmer	Champion	2148	April 16, 1912
Benson, Elmer A.	Brunetta	2149	April 16, 1912
Bland, Harry O.	Taber	2156	April 19, 1912
Bransen, John J.	Spring Lake	2163	April 20, 1912
Bonieman, John	Seven Persons	2175	April 23, 1912
Bissett, Robert B.	Gainsford	2192	April 24, 1912
Bissell, Charles M.	Gilpin	2193	April 24, 1912
Beers, John	Calgary	2202	April 26, 1912
Ribby, Reginald	Pine Creek	2235	April 29, 1912
Burgess, George G.	Lake View	2250	May 3, 1912
Birnel, Ernest E.	Sunnyslope	2251	May 3, 1912
Burnette, Fred N.	Calgary	2271	May 22, 1912
Boulet, John	Calgary	2272	May 22, 1912
Brennan, Cornelius	Bassano	2273	May 22, 1912
Bush, John Thomas	Edmonton	2308	June 17, 1912
Bird, Jos. Samuel	Edmonton	2326	July 12, 1912
Bronsema, Emanuel	Edmonton	2328	July 16, 1912
Buttress, Clement	Noyes Crossing	2329	July 16, 1912
Bristo, Wm. George	Calgary	2338	July 18, 1912
Brown, James	Calgary	2404	Oct. 19, 1912
Bradshaw, Alfred	Calgary	2642	Nov. 8, 1913
Bailey, Peter	Edmonton	2422	Dec. 13, 1912
Baynton, Edward	Wainwright	2423	Dec. 13, 1912
Barnott, Edward	Edmonton	2443	Jan. 13, 1913
Bevins, Harvey S.	Irvine	2473	Mar. 7, 1913
Baldwin, Harry	Diamond City	2474	Mar. 10, 1913
Butti, Petro	Frank	2483	Mar. 14, 1913
Bjornson, Esbjorn	Kananaskis	2510	April 7, 1913
Baer, E. F.	Redcliff	2517	April 15, 1913
Bennett, William A.	Calgary	2528	April 21, 1913
Bonkoski, Anthony J.	Marlboro	2506	April 26, 1913
Belisle, Fred A.	Redcliff	2565	May 15, 1913
Bickerton, George H.	Gleichen	2571	May 19, 1913
Benton, Charles Ed	Innisfail	2652	Dec. 13, 1913
Berlinguette, L. C.	St. Paul de Metis	2655	Dec. 16, 1913
Currie, L.	Strathcona	*23	Oct. 9, 1899
Cameron, John	Edmonton	*25	Oct. 9, 1899
Carscadden, F. W.	Strathcona	*45	Mar. 7, 1900
Clink, George J.	Lacombe	*115	Dec. 31, 1900

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Campbell, Michel	Canmore	*141	May 1906
Cruikshank, Charles	Red Deer	*186	Dec. 18, 1901
Clauson, John	Red Deer	*231	April 23, 1902
Currie, William	Medicine Hat	*256	Aug. 18, 1902
Currie, Archibald	Medicine Hat	*406	Aug. 23, 1903
Calhoun, Culver	Calgary	*488	Mar. 14, 1904
Curtis, W. W.	Carstairs	*551	Dec. 20, 1904
Coulter, Frank	Edmonton	*528	April 18, 1904
Cunningham, J. E.	Ellerslie	*529	April 18, 1904
Clark, W. A.	Edmonton	*530	April 18, 1904
Charlette, Clifford	Beaumont	*634	Oct. 15, 1904
Cote, Joseph	Beaumont	*637	Oct. 15, 1904
Crichton, David O.	Lethbridge (dup.)	*59	Dec. 2, 1905
Carpenter, David	Pincher Creek	*679	Dec. 9, 1904
Cummins, Walter J. C.	Calgary	*743	Mar. 16, 1905
Colter, Charles	Medicine Hat	*860	June 14, 1905
Converse, E.	Ponoka	55	Nov. 16, 1905
Campou, Denis	St. Albert	82	Mar. 26, 1906
Clausen, Daniel	Evarts	106	April 24, 1906
Cartwright, George	Calgary	116	April 30, 1906
Cooper, Wm. S.	Calgary	126	April 30, 1906
Craig, James T.	Edmonton	144	May 29, 1906
Colwell, Frank L.	Didsbury	152	May 31, 1906
Craig, Mert E.	Markerville	158	May 31, 1906
Clark, James E.	Taber	172	Aug. 11, 1906
Clark, O. S.	Meadow Creek	1087	Oct. 20, 1909
Carcaden, Arthur	Nanton	194	Aug. 13, 1906
Charboneau, Len	Fort Saskatchewan	213	Sept. 13, 1906
Camfield, Ernest L.	Stettler	229	Sept. 20, 1906
Chabot, Joseph	Edmonton	235	Sept. 20, 1906
Coghill, Albert	Red Deer	239	Sept. 27, 1906
Cummings, Wm. J.	Bentley	244	Sept. 27, 1906
Curtis, Homer G.	Edmonton	265	April 29, 1907
Campbell, James H.	Edmonton	282	May 15, 1907
Code, James A.	Red Deer	296	May 20, 1907
Campbell, Johnson	Innisfail	317	May 29, 1907
Collard, Charles D.	Mundare	332	May 31, 1907
Cosgrove, James McA.	Calgary	341	June 4, 1907
Carter, John R.	Morningside	368	June 7, 1907
Cox, John	Stettler	369	June 7, 1907
Cunningham, Orvill D.	Vegreville	395	June 14, 1907
Cunningham, Wilber R.	Bawlf	403	June 14, 1907
Campbell, Benj. F.	Edmonton	2552	May 3, 1913
Clark, Herbert	Strathcona	418	June 14, 1907
Coates, Robert A.	Cochrane	441	June 29, 1907
Caplin, Fred C.	Huntsville	467	July 15, 1907
Charters, Ed J.	Claresholm	469	July 15, 1907
Clemens, Pater F.	Stettler	531	Oct. 28, 1907
Crego, W. E.	Lacombe	537	Oct. 28, 1907
Cook, Wm. D.	Lamerton	565	Feb. 27, 1908
Culp, George W.	Spring Coulee	630	April 9, 1908
Cook, Francis R.	Medicine Hat	659	April 27, 1908
Cutting, Francis R.	Vermilion	676	April 27, 1908
Chambers, John	Lloydminster	710	May 18, 1908
Castian, Desire	Cardiff	774	Sept. 18, 1908
Collard, Richard R.	Edmonton	775	Sept. 18, 1908
Coburn, Alex F.	Daugh	787	Sept. 21, 1908
Cotterall, John	Calgary	798	Sept. 22, 1908

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Clark, Tom	Cochrane	799	Sept. 22, 1908
Carrow, Jos. B.	Calgary.....	800	Sept. 22, 1908
Cull, Cecil	Vegreville	813	Sept. 28, 1908
Challenger, Alf. E.	Edgerton	814	Sept. 28, 1908
Carriere, Arthur	High River	825	Oct. 2, 1908
Cody, William H.	High River	826	Oct. 2, 1908
Cousins, Bert	High River	827	Oct. 2, 1908
Cousins, Walter	High River	828	Oct. 2, 1908
Cameron, George M.	Calgary	861	Oct. 10, 1908
Cleave, George M.	Vegreville	865	Oct. 27, 1908
Coffman, Robert	Frank	868	Nov. 5, 1908
Curey, Wm.	Bowville	892	Mar. 24, 1909
Conibear, Wm. N.	Lethbridge.....	893	Mar. 24, 1909
Carlson, Carl G.	Didsbury	908	Mar. 26, 1909
Canton, Jules	Edmonton	939	April 3, 1909
Chester, Thomas W.	Macleod	952	April 7, 1909
Christian, Wm. M.	Vermillion	980	April 20, 1909
Cleven, Nels T.	Killam.....	995	April 23, 1909
Court, Wm. E.	The Gap	1019	April 28, 1909
Crews, Waldan	Medicine Hat	1048	May 1, 1909
Cathro, Aylmer G.	Lethbridge.....	1170	Oct. 9, 1909
Cowell, Robert J.	Edmonton.....	1062	Oct. 21, 1909
Chalmers, John	Coleman.....	1110	Sept. 18, 1909
Cartwright, Walter	Frank.....	1111	Sept. 18, 1909
Cotton, Samuel J.	Coleman.....	1112	Sept. 18, 1909
Currar, James	Edmonton.....	1179	Nov. 16, 1909
Cuddy, Andrew S.	Hillend	1197	Mar. 3, 1910
Czarkaski, Antonio	Edmonton.....	1202	Mar. 5, 1910
Campbell, John Chas.	Taber	1221	Mar. 15, 1910
Cimoline, Antonio	Lille	1248	Mar. 21, 1910
Callahan, Joseph	Pincher Creek	1258	Mar. 22, 1910
Cridland, Walter	Summerview.....	1259	Mar. 22, 1910
Cook, Marshall S.	Pincher Creek	2014	Dec. 19, 1911
Curtis, Claud C.	Macleod.....	1281	Mar. 30, 1910
Carroll, Thos. C. P.	Vermillion.....	1303	April 6, 1910
Clay, Elmer	Paradise Valley	1304	April 6, 1910
Cleophas, Leif M.	Coaldale.....	1313	April 7, 1910
Cady, Lynn	Edmonton.....	1345	April 13, 1910
Cheyne, James	Edmonton.....	1405	May 17, 1910
Callfas, Henry	Edmonton.....	1442	July 14, 1910
Cutlack, Percy	Cowley.....	1469	Aug. 31, 1910
Cook, Delmer E.	Innisfail.....	1513	Sept. 21, 1910
Cameron, James D.	Bassano.....	1521	Sept. 23, 1910
Glennin, Samuel	Bawlf.....	1541	Oct. 7, 1910
Crawford, Robert	Barnhill.....	1564	Oct. 20, 1910
Campbell, Hugh J.	Calgary.....	1578	Oct. 21, 1910
Chapman, Thomas	Lethbridge.....	1612	Mar. 7, 1911
Chadwick, Emmi	Calgary.....	2476	Mar. 14, 1913
Czerniawski, Mike	Vegreville.....	1664	Mar. 22, 1911
Cary, Belbert	Stettler	1671	Mar. 24, 1911
Campbell, Lewis A.	Warner.....	1686	Mar. 29, 1911
Campbell, Benj.	Warner.....	1687	Mar. 29, 1911
Coffee, Clinton	Tide Lake	1732	April 10, 1911
Coyle, Ed S.	Nanton	1763	April 19, 1911
Christian, Neal	Magrath.....	1778	April 24, 1911
Cox, Orville	Kesma	1802	May 6, 1911
Cleminson, Jer	Calgary.....	1818	May 20, 1911

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Cleminson, Wm.	Calgary	1819	May 20, 1911
Caveny, Howard	Stavely	1859	June 20, 1911
Clock, Alf. L.	River Bow	1860	June 20, 1911
Call, Hubert L.	Wetaskiwin	1870	July 6, 1911
Crinion, Bert	Sundial	1875	July 13, 1911
Cromer, Walter	Edmonton	1889	Aug. 16, 1911
Chatvaire, Jean	Edmonton	1890	Aug. 16, 1911
Cameron, Frank A.	Calgary	1897	Aug. 22, 1911
Carney, Wm. C.	Nanton	1969	Oct. 20, 1911
Caron, Alphonse	Riviere Qu Barre	1985	Oct. 25, 1911
Cowe, George	Edmonton	1988	Nov. 10, 1911
Cook, Wm. R.	Taber	1997	Nov. 17, 1911
Corlett, Wm. Ed.	Edmonton	1768	April 21, 1911
Corlett, Wm. Ed.	Edmonton	2225	April 29, 1912
Carlson, Gus. A.	Battle River	1964	Oct. 18, 1911
Carlson, Gus. A.	Battle River	2287	May 29, 1912
Christie, Wm W.	Cayley	2025	Jan. 16, 1912
Clegg, Wm A.	Coleman	2028	Jan. 16, 1912
Corbett, Richard A.	Strathcona	2046	Feb. 23, 1912
Coskey Clarence J.	Passley	2057	Mar. 13, 1912
Cofeld, Lemmy	Ardenville	2070	Mar. 18, 1912
Crapo, George	Bickerdike	2097	Mar. 25, 1912
Clem, John W.	Bragg Creek	2109	Mar. 28, 1912
Crawford, Dan A.	Magrath	2120	April 2, 1912
Collins, George H.	Gleichen	2125	April 4, 1912
Carnahan, Reuben J.	Bassano	2126	April 4, 1912
Cameron, Wm T.	Sedgewick	2136	April 10, 1912
Conover, George F.	Grassy Lake	2176	April 23, 1912
Collins, John	Calgary	2203	April 26, 1912
Court, Ed Alfred	Exshaw	2204	April 25, 1912
Card, Herbert	Leslieville	2252	May 3, 1912
Cowger, Daniel L.	Bassano	2299	June 11, 1912
Collyer, Percy E.	Edmonton	2309	June 17, 1912
Copson, Fred W.	St. Albert	2310	June 17, 1912
Cameron, Wm. John	Calgary	2339	July 18, 1912
Craig, James A.	Tilley	2340	July 18, 1912
Chrisman, Frank	Vermilion	2382	Sept. 20, 1912
Cormier, Henry O.	Wetaskiwin	2397	Oct. 16, 1912
Curtis, Leë L.	Edmonton	2412	Nov. 8, 1912
Cox, Arthur	Calgary	2434	Dec. 18, 1912
Cresby, William	Exshaw	2435	Dec. 18, 1912
Cathcart, James	Edmonton	2491	Mar. 26, 1913
Christianson, Oliver	Edmonton South	2444	Jan. 13, 1913
Costa, Joseph	Bellevue	2484	Mar. 14, 1913
Collin, Louis C.	Carmangay	2505	April 3, 1913
Crouch, Leroy	Redcliff	2518	April 15, 1913
Clement, Arthur L. H.	Calgary	2529	April 21, 1913
Clare, Charles E.	Medicine Hat	2567	May 15, 1913
Cartwright, Vern	New Dayton	2570	May 15, 1913
Cownden, William R.	Edmonton N.	2594	June 21, 1913
Crow, James A.	Edmonton South	2605	July 17, 1913
Callfas, Henry	Carbon	2618	Aug. 21, 1913
Chatvaire, Jean	Calgary	2630	Sept. 20, 1913
Clark, James A.	Grainford	2632	Sept. 25, 1913
Crawford, Thomas Hy.	Medicine Hat	2651	Dec. 13, 1913
Carson, William	Edmonton	2661	Dec. 17, 1913
Delop, Thomas	Frank	*293	Sept. 30, 1902

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Dobbs, F. M.	Iowalta	*515	April 18, 1904
Druar, S. P.	Riviere Qui Barre	*532	April 18, 1904
Dubuc, Emile	Morinville	*551	May 26, 1904
Davis, Henry E.	Didsbury	*752	Mar. 24, 1905
Davie, Alvin A.	Calgary	*846	Mar. 26, 1905
Dickson, James	Blairmore	6	Sept. 16, 1905
Dowsett, Nat.	Frank	516	Oct. 22, 1907
Dye, James E.	Ponoka	33	Sept. 16, 1905
Deisting, C. G.	Duhamel	54	Nov. 3, 1905
Dowling, Nelson	Edmonton	90	Mar. 11, 1906
Devillard, Louis	Edmonton	89	Mar. 11, 1906
Drader, Ernest	Lacombe	112	April 25, 1906
Dawes, Albert A.	High River	121	April 30, 1906
Dickson, Wm. A.	Medicine Hat	167	Aug. 11, 1906
Dickens, Charles	Lille	183	Aug. 13, 1906
Dance, Walter H.	Innisfail	293	May 20, 1907
Doolan, John T.	Fort Saskatchewan	335	May 31, 1907
Doyle, John L.	Langdon	349	June 4, 1907
Davidson, Peter A.	Calgary	358	June 4, 1907
Drewes, H. F. W.	Mayville	373	June 7, 1907
Davidson, Andrew C.	Lacombe	377	June 7, 1907
Dersch, Anton L.	Leavings	451	July 15, 1907
Dobbie, Alex	Pincher Creek	929	April 1, 1909
Drury, William	Taber	552	Dec. 26, 1907
Drinnon, Robert McC.	Calgary	586	Mar. 23, 1908
Deakin, Thos.	Hillcrest	606	April 8, 1908
Dickson, John	Red Deer	640	April 14, 1908
Dehning, Louis H.	Tapscott	649	April 15, 1908
Davis, George O.	Crossfield	680	May 1, 1908
Dowsett, Alfred	North Bank	697	May 7, 1908
Davis, Chris A.	Lavoy	724	May 18, 1908
Dennis, Glen	Vegreville	726	May 18, 1908
Denner, Joseph	Lesser Slave Lake	737	Aug. 6, 1908
Dunbar, Frank G.	Three Hills	756	Sept. 8, 1908
Dickan, Chas. J. H.	Didsbury	760	Sept. 11, 1908
Davis, Clarence	Stavely	829	Oct. 2, 1908
Davis, Christopher	Lethbridge	846	Oct. 6, 1908
Dingee, Harry	Lethbridge	867	Oct. 29, 1908
Dangerfield, James A.	Olds	490	Dec. 30, 1909
Donnelly, Henry J.	Wetaskiwin	*784	Mar. 27, 1905
Dawson, John C.	Mountain View	455	July 15, 1907
Denson, Alex. R.	Bankhead	550	Dec. 5, 1907
Duffey, Alfred	Lethbridge	2656	Dec. 16, 1913
Bluski, John	Sundial	897	Mar. 24, 1909
Deugan, Hiram W.	Coleman	910	Mar. 30, 1909
Darimont, James	Edmonton	942	April 3, 1909
Dickan, Ferd W.	Ponoka	947	April 17, 1909
Dupmeyer, Joseph	Edmonton	981	April 20, 1909
Davis, George W.	Falstaff	996	April 22, 1909
Duncan, Alex. D.	Edmonton	1063	May 21, 1909
Dixon, William	Calgary	1117	Sept. 21, 1909
Dickie, Samuel	Lethbridge	1157	Oct. 5, 1909
Davey, John B.	Calgary	1206	Mar. 7, 1910
Dawson, Wm.	Macleod	1267	Mar. 28, 1910
Denike, George H.	Lacomb	1285	April 1, 1910
Davy, Stewart C.	Calgary	1324	April 8, 1910
Davidson, James F.	Calgary	1325	April 8, 1910

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
David, J. R.	Vegreville	1696	Mar. 13, 1911
Darrow, Mason	Taber	1368	April 15, 1910
Dainger, Orlando	Starling	1369	April 15, 1910
Dunn, Robert J.	Calgary	1383	April 21, 1910
Downing, Frank H.	Bassano	1385	April 19, 1910
Dixon, Wm.	Calgary	1415	May 23, 1910
Dow, Alexander	Lethbridge	1477	Sept. 1, 1910
Dredge, Wm. H.	Edmonton	1495	Sept. 16, 1910
Dow, James	Lethbridge	1613	Mar. 7, 1911
Dixon, George W.	Macleod	1638	Mar. 15, 1911
Davis, Wallace H.	Calgary	1649	Mar. 20, 1911
Dearden, Simon	Three Hills	1650	Mar. 20, 1911
De Wolfe, Wilburn	Sanderville	1672	Mar. 24, 1911
Dewar, Alex K.	Fort Saskatchewan ..	1769	April 21, 1911
Dankwerth, Wm. L.	Gleichen	1733	April 10, 1911
Desler, Hy. C.	Stavely	1779	April 24, 1911
Dunn, Chas. W.	Calgary	1803	May 6, 1911
Downham, Mark	Calgary	1804	May 6, 1911
Davison, H. Y.	Rexboro	1813	May 18, 1911
Damman, Wm.	New Dayton	1826	May 26, 1911
Davis, Wm. A.	Edmonton	1895	Aug. 18, 1911
Doten, Earl B.	Calgary	1932	Sept. 8, 1911
DeVore, Harley G.	Edmonton	1960	Sept. 30, 1911
Dow, Gavin M.	Lethbridge	1998	Nov. 17, 1911
Davis, Alfred J.	Lethbridge	2015	Dec. 19, 1911
Desler, George C.	Nanton	1274	Mar. 29, 1910
Desler, George C.	Nanton	2110	Mar. 28, 1912
Draper, Harry	Calgary	2035	Mar. 14, 1912
Diemert, Eugene	Stavely	2091	Mar. 22, 1912
Dubuc, Arthur	Morinville	2098	Mar. 25, 1912
Dunn, Gerald A.	Crowfoot	2127	April 4, 1912
Dyvig, Jacob	Carlstadt	2128	April 4, 1912
Davis, Newton	Bassano	2129	April 4, 1912
Dale, Lewis	Hayter	2137	April 10, 1912
Dobson, Fred J.	Camrose	2164	April 20, 1912
Davidson, Wm. H.	Lloydminster	2195	April 24, 1912
Dowsett, Edward J.	Whastao	2229	April 29, 1912
Dawson, Frank B.	Bassano	2274	May 23, 1912
Duffy, James T.	Strathmore	2300	June 11, 1912
Dillabaugh, Jacob	Edmonton	2311	June 17, 1912
Day, Ira J.	Edmonton	2381	Sept. 20, 1912
Davern, Joseph P.	Calgary	2391	Oct. 7, 1912
Dalglish, Thomas R.	Red Deer	2416	Nov. 12, 1912
Dowell, James H.	Edmonton	2424	Dec. 13, 1912
Davison, John W.	Calgary	2436	Dec. 18, 1912
Desjardines, J. Alex.	Mulhurst	2498	Mar. 28, 1913
Duffield, Charles E.	Redcliffe	2519	April 15, 1913
Dunsmore, James	Big Valley	2561	May 12, 1913
Daniels, Maurice V.	Czar	2595	June 21, 1913
Davies, Griffiths	Edmonton S.	2606	July 17, 1913
Davey, Stuart C.	Bassano	2624	Sept. 14, 1913
Edgerton, Guy	Red Deer	*184	Dec. 18, 1901
Evarts, Lucius P.	Calgary	*394	Aug. 14, 1903
Evarts, Philo.	Banff	*490	Mar. 4, 1904
Edmonds, Thos. J.	Edmonton	*803	Mar. 31, 1905
Enbody, Chas. S.	Calgary	125	April 30, 1906
Ennes, John Jas.	Innisfail	147	May 31, 1906

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Ewart, David	Strathcona.....	219	Sept. 13, 1906
Endersby, Jos. P.	Medicine Hat	261	April 6, 1907
Engen, Anton A.	Sunny Slope	311	May 29, 1907
Eggenberger, John K.	Coalbanks	327	May 29, 1907
Elliott, John	Calgary.....	353	June 4, 1907
East, Alfred E.	Strathcona.....	1436	July 7, 1910
Ensminger, Louis C.	Lacombe.....	400	June 14, 1907
Erratt, Wm. H.	Nanton	419	June 19, 1907
Emmerson, Robert	Bellevue	911	Mar. 30, 1907
Ellis, John W.	Edmonton.....	2622	Aug. 13, 1913
Elliott, Henry N.	Carstairs	536	Oct. 28, 1907
Euard, Arthur W.	Calgary.....	556	Jan. 20, 1908
Elmhirst, Jos. A.	High River	584	Mar. 23, 1908
Eiseman, Jos.	Peace River Crossing ..	738	Aug. 6, 1908
Ellison, O. H.	Strome	783	Sept. 18, 1908
Endersby, John George.....	Lethbridge.....	10	Sept. 16, 1905
Elford, Albert	Grassy Lake	1009	April 25, 1909
Edwards, Orien	Cheadle	1020	April 28, 1909
Emmericks, John J.	Gleichen	1861	June 20, 1911
Evans, John B.	Canmore	1022	April 28, 1909
East, Neal	Edmonton.....	1083	July 9, 1909
Elder, Chas. G.	Calgary.....	1118	Sept. 21, 1909
Entwhistle, Chas. H.	Edmonton.....	1145	Sept. 24, 1909
Elliott, Thos.	Cardiff.....	1182	Nov. 24, 1909
Emrich, Wm.	Innisfail.....	1198	Mar. 4, 1910
Enzenauer, Peter.....	Loma	1263	Mar. 24, 1910
Earl, Edgar G.	Norton	1392	April 25, 1910
Egger, Christian	Bowville	1411	May 21, 1910
Ells, Frederick B.	Coleman.....	1422	June 11, 1910
Erickson, Eric A.	Milk River	1423	June 11, 1910
Enyeart, Chas F.	New Dayton	1566	Oct. 20, 1910
Evans, George W.	Magrath	1314	April 7, 1910
Emde, Wm. J.	Coaldale.....	1614	Mar. 7, 1911
Eld, Gust	Parkland	1651	Mar. 20, 1911
Eshpeter, Hy.	Spring Lake	1714	April 5, 1911
Ensign, Elmer G.	Barnwell	1780	April 24, 1911
Edwards, Jas. M.	Calgary.....	1820	May 20, 1911
Evanson, Ed. M.	Raymond	1876	July 13, 1911
Earl, Alex	Strathcona.....	1891	Aug. 16, 1911
Evans, Earl L.	Leslieville	1928	Sept. 7, 1911
Evans, Thos. O.	Lille	1999	Nov. 17, 1911
Eiklor, James J.	Calgary.....	2036	Feb. 14, 1912
Edmonds, Charles	Strathcona.....	2099	Mar. 25, 1912
Elynik, Fred	Mundare	2194	April 24, 1912
Engen, Ole K.	Suffield	2301	June 11, 1912
Evans, Alfred	Edmonton.....	2312	June 17, 1912
Eades, John J.	Vermilion	2393	Oct. 10, 1912
Elliot, Walter E.	Calgary.....	2643	Nov. 8, 1913
Edwards, Frank T.	Pine Lake	2465	Feb. 12, 1913
Evans, William	Passburg	2616	Aug. 12, 1913
Ebbers, Bernard H.	Edmonton.....	2662	Dec. 17, 1913
Flack, Samuel	Red Deer.....	*211	Dec. 10, 1912
Findlay, James F.	Leduc	*194	Dec. 18, 1901
Fair, Francis Wm.	Medicine Hat	*257	Aug. 18, 1902
Foster, Wm. W.	Red Deer.....	*370	May 13, 1903
Fluker, W. R.	Fort Saskatchewan ...	*545	April 18, 1904
Flett, Andrew R.	Calgary.....	*744	Mar. 16, 1905

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Farren, Edgar	Evarts	*777	Mar. 24, 1905
Fowler, Wm. H.	Edmonton	*800	Mar. 31, 1906
Flintoff, Walter	Partridge Hill	*816	April 14, 1905
Ferguson, Ernest G.	Fort Saskatchewan ...	2547	April 26, 1913
Fairman, Charles	Medicine Hat	85	April 11, 1906
Frizzelle, James I.	Lacombe	104	April 24, 1906
Fullerton, Thomas W.	Calgary	122	April 30, 1906
Fordyce, J.	Bowden	156	May 31, 1906
Faltainsley, M.	Morinville	208	Sept. 13, 1906
Fitzsimmons, G. E.	Calgary	237	Sept. 24, 1906
Falkenberg, Fred D.	Saron	275	May 15, 1907
Forster, Michael	Leduc	278	May 15, 1907
Fortune, George	Trochu Valley	301	May 23, 1907
Fryett, Arthur J.	Neapolis	312	May 29, 1907
Frieson, J. F.	Sunny Slope	313	May 29, 1907
Fike, Daniel K.	Crossfield	320	May 29, 1907
Fuller, Albert	Calgary	357	June 4, 1907
Fox, Henry	Olds	380	June 10, 1907
Findley, Thomas	High River	429	June 19, 1907
Fricke, Chas. L.	Erskine	541	Oct. 28, 1907
Fauver, A. E.	Lamerton	542	Oct. 28, 1907
Freeze, Benj. H.	Edmonton	590	April 2, 1908
Fried, Vincent J.	Granum	598	April 2, 1908
Fried, Vincent J.	Granum	1643	Mar. 15, 1911
Firth, Hedrick	Lethbridge	603	April 8, 1908
Fowler, Dan T.	Magrath	614	April 8, 1908
Frieson, Peter	Didsbury	652	April 15, 1908
Fenner, John S.	Camrose	718	May 18, 1908
Farquhar, Alex W.	Calgary	2530	April 21, 1913
Fortin, Chas. C.	Morinville	876	Jan. 18, 1909
Forland, Ole	Lethbridge	900	Mar. 24, 1909
Feargue, Francis J.	Pincher Creek	930	April 1, 1909
Forest, James O.	Lacombe	951	April 5, 1909
Fowlie, Wm.	Blayney	967	April 16, 1909
Forslin, John	New Dayton	989	April 20, 1909
Falardean, Aaron J.	Taber	1010	April 25, 1909
Francis, Jos.	Taber	1011	April 25, 1909
Francis, Jos.	Taber	1717	April 5, 1911
Fullerton, Daniel W.	Taber	1012	April 25, 1909
Fielding, James	Lethbridge	1434	June 25, 1910
Farend, Chas. H.	Barnwell	1152	Sept. 28, 1909
Finstad, Ole A.	Claresholm	1153	Sept. 28, 1909
Fansher, Fred	Lamont	1159	Sept. 29, 1909
Fedun, John	Mundare	1160	Sept. 29, 1909
Frey, Frank	Frank	2485	Mar. 14, 1913
Fairbairn, Robert	Vegreville	1174	Oct. 22, 1909
Fietz, Otto	Diamond City	1222	Mar. 15, 1910
Fisher, Bert	Coleman	1250	Mar. 21, 1910
Fowler, Willis L.	High River	1261	Mar. 22, 1910
Frank, Christopher, E.	Frankburg	1264	Mar. 24, 1910
Fedoruk, Tyofi	Vegreville	1305	April 6, 1910
Fenton, S. A.	Taber	1370	April 15, 1910
Fletcher, John R.	Grassy Lake	1378	April 19, 1910
Francis, Wm.	Carlstadt	1393	April 25, 1910
Frigon, Fred	Calgary	1447	July 15, 1910
Fike, Jesse J.	Barnwell	1511	Sept. 21, 1910
Forey, John Jos.	Big Valley	1514	Sept. 21, 1910

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Forster, James	Hillcrest	1627	Mar. 11, 1911
Firth, Wilfred	Macleod	1637	Mar. 15, 1911
Farrell, Percy E.	Carstairs	1652	Mar. 20, 1911
Ferguson, Dugald	Nanton	1734	April 10, 1911
Frizzelle, Jinkle G.	Calgary	1735	April 10, 1911
Freisen, Ger. H.	Sunny Slope	1715	April 5, 1911
Ferschweiler, John	Trochu	1716	April 5, 1911
Flynn, Charles	Calgary	1736	April 11, 1911
Fleming, James	Medicine Hat	1781	April 24, 1911
Forsyth, James A.	Red Deer	1798	April 26, 1911
Fleming, Andrew B.	Irricana	1805	May 6, 1911
Frache, Richard	Lethbridge	1862	June 20, 1911
Foster, Arthur C.	Calgary	1898	Aug. 22, 1911
Foughty, Clifford R.	Carlstadt	1933	Sept. 8, 1911
Forbes, John	Edmonton	2008	Dec. 12, 1911
Freeman, Herbert B.	Edmonton	2641	Oct. 28, 1913
Flamme, August W.	Bow Island	2058	Mar. 13, 1912
Fitzpatrick, John	Bellevue	2073	Mar. 18, 1912
Farmer, Raymond W.	Morningside	2138	April 10, 1912
Fletcher, James	Metiskow	2165	April 20, 1912
Freeland, Charles	Hindville	2231	April 29, 1912
Fenwick, Charles	Strome	2297	June 10, 1912
Fairhurst, George	Coleman	2305	June 14, 1912
Farnsworth, Joseph	Seven Persons	2351	July 19, 1912
Findlay, Alex	N. Edmonton	2383	Sept. 27, 1912
Flett, Fred W.	Edmonton	2445	Jan. 13, 1913
Farrell, George C.	Edmonton	2548	April 26, 1913
Forgie, Alex	Clover Bar	2647	Nov. 11, 1913
Gagnon, Alfred	St. Albert	*55	May 28, 1900
Gaetz, James F.	Red Deer	*226	April 23, 1902
George, John	Kamloops	*478	June 13, 1904
Giddings, Thomas	Calgary	*489	Mar. 14, 1904
Grigat, John	Leduc	*533	April 18, 1904
Gobel, H. C.	Edmonton	*543	April 18, 1904
Gardner, Marques	Red Deer	*780	Mar. 24, 1905
Green, John	Medicine Hat	2285	May 25, 1912
Gallup, Walter E.	Medicine Hat	*858	June 14, 1905
Grote, Frank	Bon Accord	*890	Aug. 31, 1905
Griffen, Henry	Stavely	11	Sept. 16, 1905
Grote, Alex E.	Spruce Grove	65	Mar. 16, 1906
Gibeault, J. Eugene	Morinville	70	Mar. 16, 1906
Graf, John	Fort Saskatchewan ..	92	April 11, 1906
Garneau, Larry	Strathcona	224	Sept. 13, 1906
Godley, Maurice W.	Red Deer	238	Sept. 27, 1906
Grant, Farquhar	Edmonton	267	April 29, 1907
Glaspie, Ed. H.	Hurry	331	May 31, 1907
Grue, Simon T.	Camrose	394	June 14, 1907
Grove, Benj. K.	Camrose	404	June 14, 1907
Grant, George F.	Lewisville	412	June 14, 1907
Galentine, Frank	High River	434	June 19, 1907
Graves, James H.	Calgary	1223	Mar. 15, 1910
Giese, Gottlieb W.	Spruce Grove	499	Oct. 15, 1907
Graham, Willard	Crossfield	519	Oct. 24, 1907
Gwilt, George	Didsbury	528	Oct. 24, 1907
Gay, John A.	Claresholm	576	Mar. 23, 1908
Gibson, Wm. H.	Coleman	601	April 8, 1908
Gerrard, John	Lundbreck	2625	Dec. 18, 1913

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Girber, Dan E.	Sunny Slope	648	April 4, 1908
Gillett, Geo. I.	Carstairs	681	May 1, 1908
Grundy, James	Bowden	684	May 1, 1908
Greene, Geo. A.	Edmonton	708	May 18, 1908
Gustafson, Ivan	Leduc	1375	April 19, 1910
Gibbs, Jas. A.	Delnorte	715	May 18, 1908
Gray, Wm. J.	Fort Vermilion	739	Aug. 6, 1908
George, Wm. S.	Peace River Crossing ..	740	Aug. 6, 1908
Graham, John M.	Athabasca Landing	746	Aug. 13, 1908
Gotobed, B.	Strathcona	776	Sept. 18, 1908
Gale, Sidney H.	Calgary	791	Sept. 24, 1908
Gillies, Wm.	Strathcona	872	Dec. 23, 1908
Goodfellow, James	Calgary	118	April 30, 1906
Goeson, Geo. J.	Granum	912	Mar. 30, 1909
Gilmore, David	Frank	913	Mar. 30, 1909
Gibb, David T.	Raymond	990	April 20, 1909
Gusa, Ernest E.	Calgary	1013	April 25, 1909
Grobe, Charles W.	Shepard	1023	April 28, 1909
Geertruyden, H. Van	Edmonton	1086	July 25, 1909
Gilmore, Charles R.	Red Willow	1091	Aug. 27, 1909
Gullekson, Edwin L.	Wetaskiwin	1195	Sept. 7, 1909
Guertin, Joseph E.	Bowville	1101	Sept. 15, 1909
Gowdy, Wm. T.	Airdrie	1119	Sept. 21, 1909
Green, Jay H.	Brant	1120	Sept. 21, 1909
Grimoldby, Walter H.	Strathcona	1161	Sept. 29, 1909
Gobell, Edward	Royal View	2266	May 18, 1912
Grigat, John Jr.	Leduc	1286	April 1, 1910
Gunderson, Ingval J.	Warner	1360	April 14, 1910
Grudl, Stephen	Manfred	1404	May 17, 1910
Goodwin, Wm.	Strathcona	1448	July 15, 1910
Gerrie, George	Oxville	1496	Sept. 16, 1910
Gibbons, George A. R.	Balenburg	1497	Sept. 16, 1910
Giese, Daniel	Spruce Grove	1498	Sept. 16, 1910
Guess, Herbert	Pincher Creek	1567	Oct. 20, 1910
Gosling, Frederick	Morley	1580	Nov. 14, 1910
Gilmer, Allan	Provost	1673	Mar. 24, 1911
Gerchke, Wm.	Walsh	1752	April 15, 1911
Green, Chas. L.	Calgary	1764	April 19, 1911
Gross, Hy. A.	Burdette	1702	Mar. 31, 1911
Graham, Oscar J.	Grassy Lake	1703	Mar. 31, 1911
Gardner, Fred W.	Dalroy	1737	April 10, 1911
Gray, Jesse L.	Macleod	1782	April 24, 1911
Gunderson, Cornelius	Warner	1827	May 26, 1911
Graham, Wm. Robert	Summerview	1828	May 26, 1911
Gray, Wallace C.	Edmonton	1844	June 9, 1911
Greenwood, Joseph	Calgary	2532	April 21, 1913
Green, John Hy.	Staunton	1877	July 13, 1911
Greenwood, John	Calgary	1899	Aug. 22, 1911
Graham, Wm. A.	Coaldale	1908	Aug. 24, 1911
Gray, Irving	Yetwood	1909	Aug. 24, 1911
Gray, Elgin W.	Entwistle	2330	July 16, 1912
Gaugner, Arthur O.	Lethbridge	1977	Oct. 24, 1911
Gray, Luke Charles	Calgary	2367	Sept. 10, 1912
Gellhorn, Wilhelm	Strathcona	1594	Dec. 10, 1910
Gellhorn, Wilhelm	Strathcona	2425	Dec. 13, 1912
Gloer, Harrison	Iron Springs	2059	Mar. 13, 1912
Goetz, Emil Jos.	Evergreen	2075	Mar. 18, 1911

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Graf, John Peter	Independence	2100	Mar. 25, 1912
Ganser, Moritz A.	Provost	2139	April 18, 1912
Greenwood, Geo. F.	Warner	2150	April 16, 1912
Gretlum, Clarence	Bawlf	2499	Mar. 18, 1913
Grant, Wm. Jr.	Killam	2167	April 20, 1912
Gair, David	Strome	2168	April 20, 1912
Griggs, Ralph	Suffield	2171	April 23, 1912
Gardner, Harold M.	Medicine Hat	2178	April 23, 1912
Gaskell, Edwin	Edmonton	2201	April 25, 1912
Grainger, Albert	Wainwright	2215	April 29, 1912
Gilkinson, Robert J.	Clover Bar	2223	April 29, 1912
Goldsmith, Oliver	Ethelwyne	2224	April 29, 1912
Gleason, Nathan S.	Red Deer	2253	May 3, 1912
Goodwin, Edwin C.	Bassano	2275	May 22, 1912
Graham, John	Edmonton	2560	May 8, 1913
Grimoldsby, John D.	Strathcona	2313	June 17, 1912
Griffith, Louis O.	Calgary	2341	July 18, 1912
Galonot, Ernest L.	Cowley	2352	July 19, 1912
Gueker, Stephen M.	Big Valley	2409	Oct. 23, 1912
Glennon, Joshua	Banff	2421	Dec. 4, 1912
Godby, Allen C.	Edmonton	2446	Jan. 13, 1913
Gordon, Stafford G.	Calgary	2451	Jan. 15, 1913
Grant, Henry	Medicine Hat	2520	April 15, 1913
Garrett, James W.	Lamont	2549	April 26, 1913
Grundy, Harold	Edmonton	2550	April 26, 1913
Grant, Andrew	Edmonton	2554	May 5, 1913
Graham, Alex.	Fort Saskatchewan ..	2607	July 17, 1913
Gillespie, Sam C.	Calgary	2614	Aug. 11, 1913
Hewer, Jesse J.	Strathcona	*24	Oct. 9, 1899
Harrold, David	Edmonton	*54	May 28, 1906
Heffner, Frank	Bruederheim	*92	Nov. 15, 1900
Holden, J. A.	Strathcona	*114	Dec. 31, 1900
Hober, John W.	Ponoka	*214	Jan. 7, 1902
Harris, Ed S.	Star	*327	Dec. 18, 1902
Hudson, Arthur C.	Edmonton	*330	Jan. 6, 1903
Hehsdoerfer, Jos.	Edmonton	*359	May 13, 1903
Haney, Sylvester	Lacombe	*482	Jan. 28, 1904
Houghstol, Anton	Wetaskiwin	*516	April 18, 1904
Harrold, John Jr.	Edmonton	*534	April 18, 1904
Hankehadl, Edgar O.	Duhamel	*785	May 27, 1905
Hardy, Albert Wm.	Lake de May	878	Feb. 10, 1909
Henschel, August	Strathcona	49	Sept. 23, 1905
Hart, Wm. J.	Raymond	22	Sept. 16, 1905
Hacking, Geo. A.	Magrath	23	Sept. 16, 1905
Haybarger, Chas. A.	Fort Saskatchewan ..	34	Sept 16, 1905
Hewitt, Robert E.	Bon Accord	38	Sept. 18, 1905
Hays, Morion L.	Tofield	91	April 11, 1906
Headley, Henderson	Medicine Hat	88	April 11, 1906
Higgins, James A.	Medicine Hat	87	April 11, 1906
Humbke, Detriche E.	Battle River	101	April 20, 1906
Hunter, Wm. John	Fort Saskatchewan ..	109	April 24, 1906
Hobson, Patrick J.	Strathcona	130	May 4, 1906
Hunter, Fred H.	Didsbury	151	May 31, 1906
Hallett, Geo. E.	Camrose	163	July 7, 1906
Henry, Ortus	Claresholm	177	Aug. 13, 1906
Heighington, J. H.	Rosenroll	1321	April 7, 1910

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Hammitt, J. A.	Wetaskiwin	234	Sept. 20, 1906
Harris, A. J.	Chipman	223	Sept. 13, 1906
Hardy, Wm. B.	Edmonton	270	April 29, 1907
Hellemrs, John	Millet	276	May 15, 1907
Hitchcock, Arthur L.	Pine Lake	292	May 20, 1907
Harris, Ed.	Mayton	303	May 23, 1907
Hardman, Geo. S.	Mayton	306	May 23, 1907
Hilts, Neil A.	Didsbury	314	May 29, 1907
Huff, Wm. H.	Crossfield	315	May 29, 1907
Harrison, David R.	Lamont	333	May 31, 1907
Handley, J. T.	Valley City	370	June 7, 1907
Hauser, John R.	Strome	387	June 14, 1907
Hauser, George W.	Strome	401	June 14, 1907
Halstead, Arthur L.	Edberg	407	June 14, 1907
Hoar, Wm. J.	Berry Bank	409	June 14, 1907
Hartt, Guy C.	High River	421	June 19, 1907
Herron, John A.	Nanton	915	May 30, 1909
Honan, John E.	High River	431	June 19, 1907
Hislop, Thos. L.	Taber	443	June 15, 1907
Havervold, Robt. L.	Lethbridge	462	July 15, 1907
Henderson, Clifton C.	Elinor	470	July 15, 1907
Heitman, Herman	Pincher Creek	473	July 15, 1907
Hicks, Ephriam B.	Raymond	474	July 15, 1907
Harding, Norris H.	Lethbridge	848	Oct. 6, 1908
Hallman, Sydney E.	Carstairs	488	Oct. 12, 1907
Horne, Ned	Edmonton	506	Oct. 15, 1907
Healey, Jos.	Bankhead	548	Dec. 5, 1907
Henderson, John H.	Taber	554	Dec. 26, 1907
Harris, Geo. A.	Calgary	555	Jan. 20, 1908
Horwood, Walter E.	Calgary	560	Jan. 20, 1908
Hyde, Geo. T.	High River	581	Mar. 23, 1908
Hutchings, Percy J.	Edmonton	595	April 2, 1908
Howard, Sam	Frank	2076	Mar. 18, 1912
Hills, Wm. C.	Hillcrest	624	April 9, 1908
Hilts, Simon W.	Didsbury	654	April 15, 1908
Hoy, Walter M.	Medicine Hat	665	April 27, 1908
Haskins, Martin	Vermillion	670	April 27, 1908
Hayes, Fred J.	Vermillion	677	April 27, 1908
Hall, Richard	Lloydminster	673	April 27, 1908
Higginson, R. R.	Kitscoty	671	April 27, 1908
Holgate, John	Airdrie	685	May 1, 1908
Haselwood, Alfred W.	Rosenroll	701	May 7, 1908
Hunting, Humphrey W.	Lacombe	769	Sept. 14, 1908
Holbrook, Peter E.	Stettler	2502	Mar. 13, 1913
Hanlan, W. J.	Edmonton	777	Sept. 18, 1908
Hallvarson, Peter W.	Black Diamond	792	Sept. 22, 1908
Haeflin, Mark E.	Exshaw	793	Sept. 22, 1908
Henderson, Alex	Granum	830	Oct. 2, 1908
Hendrickson, John	Claresholm	831	Oct. 2, 1908
Henderson, Robert	Lethbridge	958	April 9, 1909
Hatfield, Chas. L.	Blayney	968	April 16, 1909
Hansen, Peter C.	Cleaverville	977	April 20, 1909
Hultgren, Victor	Stavelly	987	April 20, 1909
Horne, Geo. Jr.	Edmonton	982	April 20, 1909
Hall, David N.	Grassy Lake	993	April 30, 1909
Honeywell, Sid C.	Sedgewick	997	April 22, 1909
Hough, Oscar	Camrose	998	April 22, 1909

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Haugen, Peter M.	Bardo	999	April 22, 1909
Hardy, Herbert J.	Exshaw	1024	April 28, 1909
Henderson, A. J.	Langdon	1025	April 28, 1909
Hauptert, John	Lewisville	1044	April 30, 1909
Hunter, James S.	Edmonton	1064	May 21, 1909
Hendrie, Jas. M.	Lethbridge	1102	Sept 15, 1909
Hermann, Charles	Queenstown	1121	Sept. 21, 1909
Hutchinson, Fred	High River	1122	Sept. 21, 1909
Herrick, Oscar F.	Eyremore	1123	Sept. 21, 1909
Hiney, Allan	Cochrane	1124	Sept. 21, 1909
Hatfield, Wilmer B.	Lethbridge	1178	Nov. 13, 1909
Hawkes, Wm.	Edmonton	1185	Dec. 4, 1909
Heighs, Geo. Jr.	Iron Springs	1225	Mar. 15, 1910
Hewitt, James R.	Cowley	1251	Mar. 21, 1910
Homer, Samuel C.	Claresholm	1275	Mar. 29, 1910
Hazelwood, Ernest Wm.	Bittern Lake	1287	April 1, 1910
Hauser, Anthony B.	Strome	1288	April 1, 1910
Hicks, Frank I.	Raymond	1315	April 7, 1910
Harris, Thomas Wm.	Raymond	1316	April 7, 1910
Hislop, Wilber	Calgary	1320	April 7, 1910
Hendrickson, Edwin	Crossfield	1335	April 11, 1910
Hickox, Wm. C.	Cochrane	1336	April 11, 1910
Holte, Ole	Logan	1347	April 13, 1910
Hansen, Fred	Viking	1348	April 13, 1910
Hammer, Leo	Lethbridge	1358	April 14, 1910
Hipp, Wm.	Taber	1371	April 15, 1910
Herrick, Weston M.	Cleversville	1387	April 22, 1910
Harder, Andrew J.	Medicine Hat	1412	May 21, 1910
Harrold, John	Lethbridge	1394	April 25, 1910
Hamilton, Walter	Olds	1419	June 9, 1910
Hamilton, John	Pincher Creek	1424	June 11, 1910
Hughes, Robert Samuel	Cardiff	1443	July 14, 1910
Hall, Jesse D.	Stirling	1466	Aug. 30 1910
Horn, Peter	Lethbridge	1467	Aug. 30, 1910
Horn, Wm.	Lethbridge	1478	Sept. 1, 1910
Hansen, Arney	Millet	1602	Jan. 20, 1911
Hill, Geo. S.	Edmonton	1499	Sept. 16, 1910
Harwood, Thos. R.	Stettler	1515	Sept. 21, 1910
Hohle, John F.	Calgary	1523	Sept. 23, 1910
Heaton, Frank	Edmonton	1528	Nov. 15, 1910
Holte, M. D.	Kipp	1615	Mar. 7, 1911
Heyland, Wm. N.	Claresholm	1644	Mar. 16, 1911
Hough, Floyd G.	Calgary	1653	Mar. 20, 1911
Halloran, Fred P.	Strathcona	1665	Mar. 22, 1911
Harding, Thos. H.	Edmonton	1666	Mar. 22, 1911
Hanna, Robert J.	Stirling	1680	Mar. 28, 1911
Howorth, Chas.	Calgary	1753	April 15, 1911
Hagen, Henry	Battle Lake	1765	April 19, 1911
Heisler, Jacob	Spring Lake	1718	April 5, 1911
Hennessey, Robert G.	Bassano	1719	April 5, 1911
Horton, Frank S.	Medicine Hat	1748	April 10, 1911
Harrison, Harley	Lethbridge	1783	April 24, 1911
Holmberg, John A.	Lucky Lake	1784	April 24 1911
Harrington, Dan L.	Diamond City	1829	May 26, 1911
Horton, S. B.	Barons	1830	May 26, 1911
Hardy, Robert W.	Leduc	1846	June 9, 1911
Honnor, Herbert N.	Medicine Hat	1863	June 20, 1911

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Huff, W. P.	Edmonton	1880	July 15, 1911
Haine, Sanford	Edmonton	1881	July 18, 1911
Harwood, Walter	Castor	1892	Aug. 16, 1911
Hornberger, Raymond	Reid Hill	1910	Aug. 24, 1911
Hango, John J.	Red Deer	1929	Sept. 27, 1911
Henry, Wm. G.	Calgary	1934	Sept. 8, 1911
Hunerkoeh, Geo. W.	Magrath	1941	Sept. 8, 1911
Harris, John	Fishburn	1942	Sept. 9, 1911
Hossier, Chas. A.	Halkirk	1961	Oct. 18, 1911
Heighington, Frank H.	Bittern Lake	1962	Oct. 18, 1911
Houghton, Ernest	Calgary	1970	Oct. 20, 1911
Hatherell, Albert	Suffield	1979	Oct. 24, 1911
Hanson, William	Spring Lake	1989	Nov. 11, 1911
Holland, Milton C.	Noble	2016	Dec. 19, 1911
Harmon, Frank E.	Pincher Stn.	1978	Oct. 24, 1911
Harmon, Frank E.	Pincher Stn.	2432	Dec. 17, 1912
Hinkle, John F.	Carlstadt	2026	Jan. 16, 1912
Holmberg, Robert E.	Calgary	2037	Feb. 14, 1912
Halverson, John A.	Edgerton	2101	Mar. 25, 1912
Halvorsen, Arent. C.	Metiskow	2140	April 10, 1912
Halvorsen, Henry G.	Metiskow	2141	April 10, 1912
Halvorsen, Henry J.	Metiskow		April 10, 1912
Holt, Olaf A.	Winnifred	2179	April 23, 1912
Holmgren, Walter	Edmonton	2196	April 24, 1912
Holmgren, Walter	Edmonton	2331	July 16, 1912
Hedlund, Victor	Wainwright	2197	April 24, 1912
Hoskins, James	Viking	2198	April 24, 1912
Haines, Charles M. J.	Calgary	2205	April 26, 1912
Hunter, Robert	Canmore	2206	April 26, 1912
Hertel, Christian	Calgary	2207	April 26, 1912
Hertel, Christian	Calgary	2437	Dec. 18, 1912
Howard, Henry	Wainwright	2216	April 29, 1912
Hawryschuk, George	Mundare	2220	April 29, 1912
Harding, Montague C.	Manville	2230	April 29, 1912
Howes, Fred R.	Stauffer	2254	May 3, 1912
Heinze, William Ed.	Coperville	2255	May 3, 1912
Haney, Edward	Bassano	2276	May 22, 1912
Hickman, Edward H.	Gleichen	2277	May 22, 1912
Hanna, Melvin	Edmonton	2314	June 17, 1912
Hindman, James	Medicine Hat	2353	July 19, 1912
Halsall, Joseph	Stavely	2368	Sept. 17, 1912
Hardy, Thomas	Lethbridge	2369	Sept. 17, 1912
Hathaway, Harold	Edmonton	2448	Jan. 13, 1913
Hudson, Benj. R.	Cardston	2398	Oct. 17, 1912
Hesse, William	Calgary	2438	Dec. 18, 1912
Harman, Noah S. A.	Edmonton	2426	Dec. 13, 1912
Hildebrandt, Oscar	Strathcona	2672	Dec. 17, 1913
Hallett, John	Castor	1674	Mar. 24, 1911
Hallett, John	Castor	2507	April 4, 1913
Hollinger, Peter	Edmonton	2447	Jan. 13, 1913
Hancock, Wesley E.	Medicine Hat	2454	Jan. 15, 1913
Hanson, Oscar	Calgary	2450	Feb. 12, 1913
Hanson, Eugene J.	Innisfail	2492	Mar. 26, 1913
Hayfield, John	Edmonton	2509	April 7, 1913
Holladay, William B.	Rosenroll	2514	April 11, 1913
Hole, James	Medicine Hat	2521	April 15, 1913
Hanson, John E.	Bawlf	2562	May 12, 1913

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Hampson, John	Edmonton	2596	June 21, 1913
Hutchinson, John W.	Medicine Hat	2601	July 10, 1913
Howard, William C.	Carlstadt	2604	July 15, 1913
High, Dan	Red Deer	2613	Aug. 9, 1913
Hackett, Walter	Taber	2617	Aug. 12, 1913
Hanna, Robert S.	Lacombe	2653	Dec. 13, 1913
Imeson, George	Stony Plain	*206	Dec. 18, 1901
Ibson, Clause W.	Mewassin	*804	Mar. 31, 1905
Isaacson, Frank	Claresholm	191	April 13, 1906
Iverson, Olaf	Molstad	231	Sept. 20, 1908
Isherwood, Wm.	Calgary	588	Mar. 23, 1908
Ingram, Wm.	Leduc	860	Oct. 7, 1908
Isaacson, Willie	Claresholm	969	April 16, 1909
Illingworth, Joseph	Edmonton	983	April 20 1909
Inglesby, E. C.	Edmonton	1180	Nov. 16 1909
Imler, John C.	Okotoks	1326	April 8, 1910
Ireland, James H.	Blairmore	1629	Mar. 11, 1911
Ingram, Wesley	Tofield	1697	Mar. 31, 1911
Ives, Albert J.	Grassy Lake	1704	Mar. 31, 1911
Ireland, Wm. James	Cardston	1911	Aug. 24, 1911
Innes, Jas. L.	Edmonton	2315	June 17, 1912
Iball, William	Kipp	2354	July 19, 1912
Isaacson, Arthur S.	Evarts	514	Oct. 22, 1907
Isaacson, Arthur S.	Evarts	2654	Dec. 13, 1913
Jackson, Chas.	Calgary	*66	July 19, 1900
Joyner, Chas. A.	Bentley	*173	Oct. 2, 1901
James, Dunham D.	Didsbury	*321	Nov. 1, 1902
Jeune, Ivan	Wetaskiwin	*332	Feb. 13, 1903
Jamieson, Johnston	Ponoka *	*353	April 24, 1903
Johnson, Conrid	Red Deer	*414	Aug. 29, 1903
Jameson, Charles W.	Ponoka	*644	Oct. 15, 1903
James, F. S.	Ponoka	28	Sept. 16, 1905
Johnson, Elijah	Canyon	61	Dec. 29, 1905
Johnson, Ed	Diana	99	April 20, 1906
Jenson, Louis C.	Alix	114	April 25, 1906
Jones, Jack	Bankhead	140	May 14, 1906
Johnson, Benj. F.	Raymond	186	Aug. 13, 1906
Jones, Fred	Coleman	189	Aug. 13, 1906
Job, Charles	Strathcona	222	Sept. 13, 1906
Jordon, A. H.	Edmonton	271	April 22, 1907
Jesse, Ed.	Hardisty	316	May 29, 1907
Johnson, G. Anton	Didsbury	328	May 31, 1907
Johanson, Henry	Walsh	361	June 4, 1907
Johnson, Joseph	Medicine Hat	284	May 15, 1907
Jones, Arthur	Camrose	383	June 14, 1907
Johns, Thos. L.	Magrath	459	July 15, 1907
Jamieson, Jesse H.	Edmonton	505	Oct. 15, 1907
Johannson, John T.	Olds	521	Oct. 24, 1907
Journey, Clyde R.	Brant	582	Mar. 22, 1908
Jepson, Walter	Bellevue	612	April 8, 1908
Johnston, Percy W.	Edmonton	713	May 18, 1908
Johnson, Elmer	Daysland	716	May 18, 1908
Julien, Eugene	South Bend	720	May 18, 1908
Johnson, Charles J.	Stavely	832	Oct. 2, 1908
Jensen, Ole E.	Seven Persons	833	Oct. 2, 1908
Jones, Isaac	Raymond	849	Oct. 6, 1908

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
James, John E.	Taber	850	Oct. 6, 1908
Johnson, Alfred	Hillcrest	917	Mar. 30, 1909
Jackson, Thos. C.	Stettler	962	April 13, 1909
James, Griffith L.	Ponoka	975	April 17, 1909
Jones, Robert	Lethbridge	1103	Sept. 15, 1909
Jermaine, Stephen	Andrew	1038	April 29, 1909
Johnson, W. E.	Lethbridge	1058	May 4, 1909
Jones, Arthur W.	Edmonton	1060	May 20, 1909
Johnson, John G.	Millet	1065	May 21, 1909
Jones, Wm. Daniel	Edmonton	2289	May 29, 1912
Johnson, Charles J.	Onoway	1192	Jan. 10, 1910
Jones, Wm. C.	Bow Island	1226	Mar. 25, 1910
Jeanclaude, Leopold	Edmonton	1306	April 6, 1910
Jackson, Roy E.	Queenstown	1327	April 8, 1910
Johnston, Albert J.	Calgary	2208	April 26, 1912
Jordan, Glen L.	Banff	1338	April 11, 1910
Jones, Albert E.	Rosebud Creek	1407	April 19, 1910
Johnsrud, Alfred	Harmattan	1552	Oct. 17, 1910
Johnson, Jas. F., Jr.	Barnwell	1568	Oct. 20, 1910
Jones, Samuel	Lethbridge	2657	Dec. 16, 1913
James, Reginald	Coleman	1630	Mar. 11, 1911
Jensen, Rasmus	Raymond	1681	Mar. 28, 1911
Johnson, Wm. F.	Walsh	2021	Dec. 27, 1911
Jones, Wm. N.	Edmonton	1814	April 18, 1911
Jenkins, James	Coleman	2609	July 18, 1913
Jelly, Alf	Calgary	1882	July 19, 1911
Johnson, Ellin	Calgary	1923	Aug. 26, 1911
Joseph, Orvil E.	Macleod	1935	Sept. 8, 1911
Jantzen, Peter H.	Calgary	1936	Sept. 8, 1911
Johnson, Benj. C.	Magrath	1943	Sept. 9, 1911
James, John	Elcan	2482	Mar. 14, 1913
Johnson, Joseph	Blackie	2038	Feb. 14, 1912
Johnson, William	Ft. Chipewyan	2045	Feb. 22, 1912
Jones, Ray	Calgary	2239	May 1, 1912
Jackson, Geo. Alex.	Lignite	2263	May 8, 1912
Jeffry, Philip	Granum	2360	Aug. 14, 1912
Johannsen, Alfred	Calgary	2376	Sept. 19, 1912
Johnson, John Peter	Taber	2399	Oct. 17, 1912
Johnson, Herbert N.	Calgary	2477	Mar. 14, 1913
Jackson, Wm. H.	Markerville	2515	April 11, 1913
John, Thomas	Calgary	2572	May 19, 1913
Krause, Otto	Innisfail	*171	Oct. 1, 1901
Kaungiesser, Simon	Lacombe	*521	April 18, 1904
Kelsey, A. F.	Clover Bar	*535	April 18, 1904
Knapp, Henry H.	Edmonton	*645	Oct. 15, 1904
Kerwin, James	Leavings	*748	Mar. 16, 1905
Kolner, Bernard	Millet	*793	Mar. 27, 1905
Klapstein, Ed	Ellerslie	*49	April 25, 1905
Krouse, Wilhelm	Spruce Grove	*819	April 14, 1905
Kallis, Ed	Strathcona	*847	May 26, 1905
Knight, Harry P.	Edmonton	35	Sept. 16, 1905
Krinke, August	Highland Park	46	Sept. 18, 1905
Kerr, John	Calgary	64	Mar. 9, 1906
Kennedy, Dent	Calgary	124	April 30, 1906
Karmangel, F. R.	Didsbury	154	May 31, 1906
Kiddle, Thos. M.	Stirling	165	April 11, 1906
Kearney, W. J.	Claresholm	178	Aug. 13, 1906

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Kjosness, Peter P.	Martins	217	Sept. 13, 1906
Kendrews, Jos. W.	Edwell	250	Oct. 5 1906
Krinke, Benj.	Highland Park	249	Oct. 5, 1906
Knowles, Kenneth E.	Wetaskiwin	264	April 25, 1907
Kremer, David H.	Innisfail	294	May 20, 1907
Kjorsvik, Albert	Eagle Hill	305	May 23, 1907
Kittlitz, Ed	Bruederheim	329	May 31, 1907
Kenny, John	Calgary	918	Mar. 30, 1909
Knape, Ernest P.	Calgary	344	June 4, 1907
Keegan, Dan	Morley	355	June 4, 1907
Kreamer, Wm. W.	Strathcona	384	June 14, 1907
Keith, Scott	Taber	551	Dec. 26, 1907
Kniseley, Arthur C.	Standoff	1143	Sept. 21, 1909
Klein, Emil F.	Leduc	669	April 27, 1908
Kadlec, Frank	Wetaskiwin	712	May 18, 1908
Kinne, Fred	Calgary	750	Aug. 28, 1908
Kemp, Robert M.	Duagh	816	Sept. 28, 1908
Keoster, Carl H.	Granum	834	Oct. 2, 1908
Keeler, Ralph A.	Lethbridge	851	Oct. 6, 1908
Kendrew, John T.	Edwell	888	Mar. 20, 1909
Kalis, Theodore	Edmonton	941	April 2 1909
King, Charles F.	Macleod	953	April 7, 1909
Knudson, Loues	Killam	1000	April 22, 1909
Knudson, Chas. A.	Wetaskiwin	1098	Sept. 10, 1909
King, Benj.	Lethbridge	1227	Mar. 15, 1910
Keffer, J. John	Frank	2078	Mar. 18, 1912
Kitchen, Elroy R.	Cayley	1265	Mar. 24, 1910
Kittlitz, Chrystian	Bruederheim	1307	April 6, 1910
Kneis, Louis	Stony Plain	1308	April 6, 1910
Krutz, John	Calgary	1328	April 8, 1910
Kincade, Jerry	Stirling	1372	April 15, 1910
Klinger, Hy.	Calgary	1428	June 14, 1910
Kjosness, Alfred	Martins	1501	Sept. 21, 1910
Kuhl, Edward	Stony Plain	1502	Sept. 21, 1910
Kinnen, Peter	Independence	1509	Sept. 21, 1910
Kruse, Herman	Hastings Coulee	1542	Oct. 7, 1910
Knight, O. L.	Taber	1586	Nov. 17, 1910
Kremper, Ernest	Edmonton	1589	Nov. 23, 1910
Kirkby, Theo.	Lethbridge	1619	Mar. 7, 1911
Kolschorsky, Ed	Stony Plain	1698	Mar. 31, 1911
Kirstein, Aug.	Wetaskiwin	1720	April 5, 1911
Klaus, John S.	Gleichen	1739	April 19, 1911
Kincade, Wyet E.	Seven Persons	1796	April 24, 1911
Keller, Fred	Edmonton	2384	Sept. 27, 1912
Kemp, George F.	Calgary	1851	June 13, 1911
Kiviatniowsky, Joe	Heatherwood	1853	June 16, 1911
Klassen, Abm. W.	Acme	1900	Aug. 22, 1911
Kaatz, Ed. A.	Burdett	1912	Aug. 24, 1911
Kelly, John D.	Calgary	1937	Sept. 8, 1911
Kidd, George	Lethbridge	2029	Jan. 16, 1912
Kirkham, John T.	Macleod	2077	Mar. 18, 1912
Kerr, William	Coleman	2079	Mar. 18, 1912
Kilmer, Owen	Suffield	2130	April 4, 1912
Knight, Herbert	Therien	2228	April 29, 1912
Kinsella, Charles A.	Strathcona	2316	June 17, 1912
Kerr, John	Calgary	2342	July 18, 1912
Kuhl, Edward	Calgary	2375	Sept. 19, 1912

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Kuhl, Edward	Calgary	2466	Feb. 13, 1913
Kirton, Thomas	Edmonton	2461	Feb. 12, 1913
King, George	Okotoks	2478	Mar. 14, 1913
Klentsche, Karl	Medicine Hat	2522	April 15, 1913
Lamoureux, Alcide	Lamoureux	96	Nov. 15 1900
Lee, George	Edmonton	*2442	Dec. 20, 1912
Lewis, Wm. H.	Innisfail	*888	Aug. 28, 1905
Lamoureux, Alp.	Lamoureux	*186	Dec. 18, 1902
Loiselle, Jerry	Red Deer	1599	June 4, 1911
Lundy, Wm. Thomas	Innisfail	*227	April 23, 1902
Lynch, Alix W.	Blairmore	*259	Aug. 18 1902
Lyseng, Knut K.	Bittern Lake	*390	Aug. 7, 1903
Lindberg, Erick	Calmar	*510	April 18, 1904
Langhausen, Jacob	Fort Saskatchewan	*523	April 18, 1904
Langhausen, Peter	Fort Saskatchewan	*524	April 18, 1904
Lee, Andrew E.	Wetaskiwin	*525	April 18, 1904
Lehman, Harrison	Edmonton	*564	Feb. 15, 1908
Logan, John	Penhold	*774	Mar. 24, 1905
Logan, Dan	Red Deer	*783	Mar. 24, 1905
Lee, Oscar E.	Wetaskiwin	*788	Mar. 27 1905
Long, Albert W.	Namoo	36	Sept. 16, 1905
Lindholm, Andrew G. J.	Burnt Lake	60	Dec. 27, 1905
Lee, Albert	Wetaskiwin	97	April 20, 1906
Laine, Francois P.	Bankhead	138	May 14, 1906
Lambe, Alex	Didsbury	150	May 30, 1906
Linkous, Jas. B.	Raymond	173	Aug. 13, 1906
Lindsay, Samuel D.	Strathcona	212	Sept. 13, 1906
Lennox, Jas. A.	Red Deer	251	Oct. 5, 1906
Luigi, Liega	Lille	256	Dec. 28, 1906
Lawrence, Frederick S.	Fort Vermillion	544	Oct. 29, 1907
Lawrence, Fenwick N.	Edmonton	260	Feb. 23, 1907
Lavoil, Lewis J.	Evarts	290	May 20, 1907
Lancaster, Robert V.	Calgary	736	July 24, 1908
Latam, Myron B.	Conit	371	June 7, 1907
Lehman, Sam	Nanton	438	June 19, 1907
Lamoureux, Hermida	Lamoureux	502	Oct. 15, 1907
Lamoureux, Albert	Lamoureux	503	Oct. 15, 1907
Lee, Thos. H.	Olds	518	Oct. 24, 1907
Lewis, Lyman L.	Olds	526	Oct. 24, 1907
Lang, Wm.	Okotoks	566	May 26, 1908
Lyon, Omar	Blayney	571	May 23, 1908
Lee, John A.	Edmonton	592	April 2, 1908
Lee, Lars	Leduc	678	April 27, 1908
Loveless, Peter	Lloydminster	707	May 18, 1908
Lucas, Sam B.	Daysland	719	May 18, 1908
Lansing, George	Leavings	1455	Aug. 2, 1910
Littlefield, Chas. W.	Eagle Hill	909	Mar. 26, 1909
Lehman, Peter L.	Pincher Creek	931	April 1, 1909
Laut, Frank	Ena	960	April 9, 1909
Link, Ronald F.	Lethbridge	945	April 6, 1909
Lunn, Edward	Stettler	963	April 13, 1909
Lewis, Isaac H.	Killam	1001	April 22, 1909
Long, Geo. S.	Namoo	1039	April 29, 1909
Lunder, Andrew H.	Westerose	1045	April 30, 1909
Leonard, Jas. F.	Seven Persons	1049	May 1, 1909
Larson, Edwin H.	Seven Persons	1050	May 1, 1909
Lindsey, Horace F.	Strathcona	1075	May 26, 1909

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Larson, Harry	Langdon	1079	June 1, 1909
LaBonte, Fred	Calgary	1125	Sept. 21, 1909
Laventure, Arthur	Beaumont	1146	Sept. 25, 1909
Lawrence, Herman M.	Ross Creek	1162	Sept. 29, 1909
Long, Herbert Wm.	Calgary	1187	Dec. 17, 1909
Lawrence, Sheridan	Fort Vermillion	741	Aug. 6, 1908
Laroux, Oliver	Chipewyan	742	Aug. 6, 1908
Lloyd, Roy A.	Carstairs	761	Sept. 11, 1908
Love, Thomas	Hicksburg	835	Oct. 2, 1908
Lindsay, Alvan A.	Calgary	1598	Jan. 6, 1911
Long, Henry G.	Calgary	1450	July 15, 1910
Lewis, George H.	Calgary	1209	Mar. 7, 1910
Low, Ralph E.	Carmangay	1276	Mar. 29, 1910
Lloyd, John W.	Stavely	1277	Mar. 29, 1910
Lotan, Herbt. N.	Strome	1289	April 1, 1910
Linquest, Nils W.	Rivierre Qui Barre	1309	April 6, 1910
LeBranc, Roaul	Mayton	1332	April 9, 1910
Lawrella, Michael	Bankhead	1339	April 11, 1910
Lindman, W. L.	Milk River	1359	April 14, 1910
Longacre, Fred	Taber	1373	April 15, 1910
Levisque, Walter	Medicine Hat	1395	April 25, 1910
Lunn, Arthur B.	Calgary	1401	April 26, 1910
Long, Jas. W.	Calgary	1408	May 19, 1910
Lane, Lewis W.	Bowville	1425	June 11, 1910
Long, Fred	Beiseker	1433	June 14, 1910
Lockhart, Wm.	Kipp	1479	Sept. 1, 1910
Lithgow, John	Reid Hill	1488	Sept. 6, 1910
Lorerm, John	Edmonton	1503	Sept. 24, 1910
Lighthall, Geo. B.	Bassano	1524	Sept. 23, 1910
Lambert, Arthur	Redcliff	1533	Sept. 24, 1910
LeGear, Russell C.	Wetaskiwin	1543	Oct. 7, 1910
Lindsay Robert	Lethbridge	1620	Mar. 7, 1911
Labby, Alfred	La Calmette	1770	April 21, 1911
Lycan, Thos. S.	Bassano	1740	April 10, 1911
Lysham, J. E.	Taber	1756	April 15, 1911
Lambert, John A.	Taber	1785	April 24, 1911
Lee, Ed A.	Calgary	1809	May 8, 1911
Laughery, James W.	Calgary	1821	May 20, 1911
Lister, Ossie	Lethbridge	1832	May 26, 1911
Lepard, Frank	Edmonton	1887	Aug. 11, 1911
Lake, Arch	Calgary	1901	Aug. 22, 1911
Lee, John J.	Rosemead	1913	Aug. 24, 1911
Little, Wm. H.	Lethbridge	1944	Sept. 9, 1911
Lambert, Wm. E.	Diamond City	1980	Oct. 24, 1911
Lewis, Gilbert B.	Granum	1984	Oct. 24, 1911
Lefort, Henry	Taber	2013	Dec. 19, 1911
Levis, Everett E.	St Albert	2024	Jan. 12, 1912
Lacquement Edward C.	Yetwood	2031	Jan. 16, 1912
Lough, Marshall	Calgary	2039	Feb. 14, 1912
Lewis, Fred	Beaver Creek	2080	Mar. 18, 1912
Linton, William H.	Parkland	2092	Mar. 22, 1912
Lagasse, John L.	Edison	2102	Mar. 25, 1912
Lippold, Herman	Cardston	2157	April 19, 1912
Long, Charles W.	Medicine Hat	2180	April 23, 1912
Lippert, Jacob	Irvine	2181	April 23, 1912
Loritz, Frank	Strathcona	2218	April 29, 1912
Levy, Ira M.	Albion Ridge	2246	May 2, 1912

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Lohrman, Chris	Halkirk	2256	May 3, 1912
Lundh, Bernard	Claresholm	2306	June 14, 1912
Little, Wm. John	Strathcona	2385	Sept. 27, 1912
Lee, William O.	Youngstown	2411	Oct. 23, 1912
Lerbeckmo, Peter O.	Bardo	2428	Dec. 13, 1912
Lindquist, Carl	Edmonton	2462	Feb. 12, 1913
Lee, James E.	Edmonton	2638	Oct. 2, 1913
Lemoine, Francis	Calgary	2533	April 21, 1913
Lain, John Theo.	Edmonton	2597	June 21, 1913
Lee, William S.	Edmonton	587	Aug. 2, 1904
Lees, Edward	Edmonton	2633	Sept. 25, 1913
Morkin, John	Dunbow	*39	Dec. 1, 1899
Martin, M. Z.	Morinville (suspended) ..	*56	May 28, 1900
Mitchell, Tim W.	Red Deer	*119	Feb. 7, 1901
Mather, E. M.	Calgary	*133	June 6, 1901
Morden, Jacob R.	Lacombe	*187	Dec. 18, 1901
Moore, John R.	Innisfail	*190	Dec. 18, 1901
Munier, Wilfred	Stony Plain	*199	Dec. 18, 1901
Miller, Philip	Morinville	*201	Dec. 18, 1901
Meneely, Wm.	Edmonton	*204	Dec. 18, 1901
Mikethus, Michael	Leduc	*210	Dec. 18, 1901
Morkeberg, D.	Innisfail	*232	April 23, 1902
Martin, Henry E.	Wardner	*854	June 13, 1905
Mooney, W. S.	Lacombe	*513	April 18, 1904
Murray, A. A.	St. Albert	*536	April 18, 1904
Meunier, J. H.	Morinville	*537	April 18, 1904
Meredith, Wilbert	Edmonton	*538	April 18, 1904
Mathews, George	Strathcona	*636	Oct. 15, 1904
Morgan, Oscar	Strathcona	*643	Oct. 15, 1904
Maxfield, W. H.	Namoo	*646	Oct. 15, 1904
Mead, Francis A.	Pincher Creek	*678	Dec. 30, 1904
May, Daniel	Blairmore	*681	Jan. 21, 1905
Mew, John	Calgary	*750	Mar. 24, 1905
Muir, Wm. J.	Ponoka	1959	Sept. 23, 1911
Marler, Walter	Clover Bar	*799	Mar. 31, 1905
Mohr, John J.	Edmonton	*870	July 6, 1905
Morel, H. F.	Edmonton	37	Sept. 16, 1905
Melnyk, Wm.	Star	40	Sept. 18, 1905
Mason, Jas. D.	Clover Bar	43	Sept. 18, 1905
Moss, Richard	Edmonton	*81	Mar. 26, 1905
Mahood, Robert F.	Buford	94	April 11, 1906
Murray, Dan L.	Bentley	105	April 24, 1906
Mitchell, Jos. C.	Tees	111	April 25, 1906
Moritz, Henry C.	Olds	146	May 31, 1906
Moritz, Louis J. A.	Olds	148	May 31, 1906
Morkeberg, Holger	Markerville	157	May 31, 1906
Maxwell, Tim	Claresholm	180	Aug. 13, 1906
Murray, Thos. N.	Medicine Hat	171	Aug. 11, 1906
Muir, Geo. A.	Morrissey	877	Feb. 1, 1909
Maunchaw, Aug.	Strathcona	218	Sept. 13, 1906
Mead, Wm.	Edmonton	221	Sept. 13, 1906
Maxfield, George A.	Namoo	236	Sept. 13, 1906
Miller, Dick F.	Blackfalds	241	Sept. 27, 1906
Malcher, Charles	Wetaskiwin	246	Oct. 5, 1906
Miller, Jones P.	Delnorte	334	May 31, 1907
Morrison, Avarid L.	Calgary	348	June 4, 1907
Martin, John C. B.	Calgary	362	June 4, 1907
Moody, Jas. Wm.	Brocket	363	June 4, 1907

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Morter, Chas. J.	Iowalta	2490	Mar. 30, 1913
Miller, Wm M.	Brant	420	June 19, 1907
Morrow, Jos. W.	Roundup	460	July 15, 1907
Meldrum, David (Jr.)	Raymond	466	July 15, 1907
Manning, Jas. A.	Cowley	471	July 16, 1907
Munro, Milo	Gleichen	484	Aug. 28, 1907
Martin, Charles A.	High River	487	Sept. 4, 1907
Miller, Fred C.	Cooking Lake	496	Oct. 15, 1907
Munro, Fred	Innisfail	510	Oct. 22, 1907
Morden, John	Lacombe	925	Mar. 30, 1909
Malchow, G. E. A.	Earlville	538	Oct. 28, 1907
Mignault, Jos. C.	Calgary	579	Mar. 23, 1908
Middleton, Archie C.	Nanton	583	Mar. 23, 1908
Marshall, Frank P.	Spring Point	600	April 8, 1908
May, Alex S.	Lille	641	April 14, 1908
Millar, T. B.	Burnt Lake	1631	Mar. 7, 1911
Marson, Chas. H.	Medicine Hat (dup.)....	735	July 15, 1908
Mitchell, Franklin A.	Medicine Hat	664	April 27, 1906
Miles, James	Vermillion	667	April 27, 1908
Mark, David McK.	Manville	1189	Dec. 29, 1909
Marler, Jas. T.	Crossfield	683	May 1, 1908
Martin, Landis	Stettler	686	May 1, 1908
Millar, John F.	Bentley	694	May 6, 1908
Munro, Alex A.	Lockhart	696	May 6, 1908
Morris, Wm. H.	Wetaskiwin	698	May 6, 1908
Maurice, Frank E.	Edmonton	730	May 26, 1908
Maxwell, John W.	Cochrane	731	June 12, 1908
Morris, Jas. E.	Lochend	732	June 12, 1908
Morris, Jas. W.	Canmore	734	June 29, 1908
Morton, Lewis R.	Athabasca Landing ...	745	Aug. 6, 1908
Mott, Henry J.	Red Deer	752	Sept. 2, 1908
Murray, James	Murray Valley	757	Sept. 8, 1908
Mortelette, H. C.	Edmonton	778	Sept. 18, 1908
Masse, Louis	Legal	778	Sept. 21, 1908
Mulligan, George B.	Bon Accord	789	Sept. 21, 1908
Miller, Jacob	Stony Plain	790	Sept. 21, 1908
Marshall, Robert E.	Raymond	852	Oct. 6, 1908
Murphy, Edward F.	Strathcona	875	Jan. 8, 1909
Morris, Andrew	Calgary	882	Mar. 19, 1909
Mackin, John	Lethbridge	2488	Mar. 19, 1913
Mitchell, Ava D.	Aldersyde	935	April 2, 1909
Munson, Jas. B.	Reid Hill	936	April 2, 1909
Moore, Corey G.	Macleod	954	April 7, 1909
Mudiman, David L.	Macleod	970	April 16, 1909
Myers, James	Claresholm	955	April 8, 1909
Myers, Roy C.	Claresholm	971	April 16, 1909
Mulligan, Jos.	Canmore	1026	April 28, 1909
Mundell, Wm. G. R.	Lethbridge	1054	May 3, 1909
Monson, Joseph	Camrose	1092	Sept. 7, 1909
Miller, James	Diamond City	1104	Sept. 15, 1909
Marr, Robert	Edmonton	1164	Sept. 29, 1909
Miller, Herman A.	Edmonton	1175	Oct. 27, 1909
Morris, John	Wild Horse	1177	Nov. 13, 1909
Muirhead, Jas. W.	Calgary	1210	Mar. 7, 1910
Mitchell, Wesley C.	Calgary	1211	Mar. 7, 1910
Morningstar, Roy	Lethbridge	1229	Mar. 15, 1910
Martin, Wm. A.	Lethbridge	1230	Mar. 15, 1910
Malchow, Fred C.	Claresholm	1278	Mar. 29, 1910

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Mach, Jos.	Camrose	1291	April 1, 1910
Messmer, John F.	Hastings Coulee	1292	April 1, 1910
Mildon, Wm. L.	Ponoka	1301	April 5, 1910
Mueller, Mike M.	Warner	1361	April 14, 1910
Mahood, C. J.	New Dayton	1362	April 14, 1910
Mayberry, Thos. W.	Warner	1363	April 14, 1910
Mitchell, Wm.	Calgary	1386	April 21, 1910
Miles, John	Lethbridge	1388	April 22, 1910
Merkel, Jacob F.	Irvine	1396	April 25, 1910
Morley, Wm. N.	Morningside	1405	May 17, 1910
Mogridge, John Jas.	Copeville	1420	June 9, 1910
Molton, Earl	Calgary	1464	Aug. 29, 1910
Michaelis, Eddie	Milk River	1481	Sept. 1, 1910
Marshall, Wm. J.	Calgary	1525	Sept. 23, 1910
Malcolm, Roy	Calgary	1526	Sept. 23, 1910
Moses, George	Medicine Hat	1534	Sept. 24, 1910
Muir, George H.	Ponoka	1982	Oct. 24, 1911
Matson, Charles	Calgary	1577	Oct. 20, 1910
Mudra, Charles	Frank	2081	Mar. 18, 1912
Matheson, Murdoch R.	Granum	1645	Mar. 15, 1911
Musser, Angus	Bassano	1654	Mar. 20, 1911
Mansell, Wm.	Canmore	1741	April 10, 1911
Moran, George I.	Langdon	1766	April 19, 1911
Martin, Wm.	Sandstone	2573	May 13, 1913
Martin, A. W.	Taber	1786	April 24, 1911
Maker, Edgar L.	Seven Persons	1787	April 24, 1911
Malton, John W.	Calgary	1806	May 6, 1911
Murrell, Vasco E.	Hardisty	1810	May 13, 1911
Melanson Norman M.	Edmonton	1815	May 18, 1911
Mattison, Fred	Blairmore	1834	May 26, 1911
Murphy, Matthew	Granum	1835	May 26, 1911
Mayberry, J. R.	Red Deer	1855	June 17, 1911
Mah, Sam	Edmonton	1871	July 12, 1911
Miller, Wm. G.	Ryley	1893	Aug. 16, 1911
Merrit, Azra M.	Noble	1914	Aug. 24, 1911
Milligan, John L.	Burdett	1920	Aug. 25, 1911
Mickleson, George A.	Calgary	2041	Feb. 14, 1912
Miniekler, John	Calgary	1925	Aug. 26, 1911
Morrison, Wm. V.	Red Deer	1930	Sept. 7, 1911
Miller, Edward S.	Spring Coulee.....	1945	Sept. 9 1911
Meldrum, John C.	Lethbridge	1947	Sept. 9 1911
Mullin, James	Edmonton	1955	Sept 9, 1911
Mildren, Wm. George	Airdrie	1972	Oct. 20, 1911
Morgan, Jacob	Lethbridge	1981	Oct. 24, 1911
Melle, Ed. L.	Carlstadt	1994	Nov. 16, 1911
Melnyk, Fred	Star	2049	Feb. 23, 1912
Murray, Wm. B.	Magrath	2062	Mar. 13, 1912
Miller, Henry J.	Claresholm	2063	Mar. 13, 1912
Malchow, Max E.	Stavely	2645	Nov. 11, 1913
Morris, Ernest	Gladys	2111	Mar. 28, 1912
Mikshus, John	Leduc	2115	April 1, 1912
Mieklejohn, Lindsay	Provost	2144	April 10, 1912
Milligan, Morris	Purple Springs	2158	April 19, 1912
Montgomery, Geo.	Clover Bar	2233	April 29, 1912
Miller, Clarence H.	Raymond	2247	May 2, 1912
Moon, Wm. C.	Elkton	2257	May 3, 1912
Mills, Edward H.	Bentley	2258	May 3, 1912
Maxwell, James	Edson	2290	May 29, 1912

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Martin, Arthur	St. Paul de Metis	2324	July 12, 1912
Massicotte, Omer	St. Paul de Metis	2325	July 12, 1912
Mullock, James I.	Edmonton	2334	July 16, 1912
Manning, Timothy	Calgary	2343	July 18, 1912
Miller, Chas. C.	Calgary	2344	July 18, 1912
Murphree, William N.	Calgary	2345	July 18, 1912
Moulton, August	Clover Bar	2359	Aug. 12, 1912
Miller, Alex.	Bassano	2363	Aug. 20, 1912
Murray, Thomas H.	Medicine Hat	2400	Oct. 17, 1912
Miller, John	Diamond City	2401	Oct. 17, 1912
Mitchell, Geo. Hy.	Calgary	2406	Oct. 19, 1912
Mackwood, Samuel	Lethbridge	2419	Nov. 13, 1912
Miller, Ellis G.	Edmonton	2429	Dec. 13, 1912
May, Albert	Bellevue	2433	Dec. 13, 1912
Mallott, Bernard B.	Calgary	2452	Jan. 15, 1913
Miller, David	Diamond City	2472	Feb. 19, 1913
Mack, Wilfred	Round Hill	2500	Mar. 28, 1913
Marshall, John H.	Calgary	2534	April 21, 1913
Miller, Gilbert	Hillcrest	2544	April 23, 1913
Mowat, Jas.	Medicine Hat	2566	May 15, 1913
Moores, Jas.	Lethbridge	2568	May 15, 1913
Mitchell, Walter J B.	Edmonton	2577	May 20, 1913
Murdoch, George	Bassano	2584	June 18, 1913
Miswold, Martin	Sheffield	2602	July 10, 1913
Moller, George	Wainwright	2663	Dec. 17, 1913
Main, William R.	Calgary	2669	Dec. 17, 1913
McKernan, Jas.	Edmonton	*28	Oct. 29, 1899
McDonald, Findlay	Sturgeon	*86	Oct. 23, 1900
McLellan, Jno.	Fort Saskatchewan	*93	Nov. 15, 1900
McLeod, M. J.	Fort Saskatchewan	94	Nov. 15, 1900
McKellar, Jno.	Fort Saskatchewan	*95	Nov. 15, 1900
McKinley, Murdock	Stony Plain	*203	Dec. 18, 1901
McLean, Archibald	Lethbridge	*250	Aug. 18, 1902
McLean, Alix M.	Calgary	*347	Mar. 9, 1902
McGarry, Fred.	Lacombe	*355	April 24, 1903
McDonald, Wm.	Penhold	*369	May 13, 1903
McConnell, Jas R.	Red Deer	*372	May 13, 1903
McLean, Jas A.	Star	*539	April 18, 1904
McDiarmid, A. D.	Edmonton	*540	April 18, 1904
McFayden, Jno. R.	Strathcona	*553	June 3, 1904
McDonald, Malcolm	Mountain Hill	*594	Sept. 14, 1904
McLeod, D. J. W.	Strathcona	766	Sept. 11, 1908
McKenzie, Dan.	Lacombe	*760	Mar. 24, 1905
McInroy, Paul	Edwell	*773	Mar. 24, 1905
McEachern, Malcolm	Leduc	*792	Mar. 27, 1905
McCathy, Jas.	Calmar	*793	Mar. 27, 1905
McPhail, Jno.	Bellevue	8	Sept. 16, 1905
McDonald, Dan.	Morinville	66	Mar. 16, 1906
McLaughlin, Chas.	Namoo	68	Mar. 16, 1906
McCallum, Albert W.	Beaver Lake	95	April 18, 1906
McAnnaly, Peter J.	Crossfield	153	May 31, 1906
McLean, Wm Jno.	Hillcrest	188	Aug. 13, 1906
McPherson, Jas P.	Bentley	1416	May 22, 1910
McNutt, Watson	Medicine Hat	262	April 6, 1907
McCune, Oscar	Red Deer	289	May 20, 1907
McGregor, Wm. W.	Blackfalds	298	May 20, 1907
McDonell, Archie A.	Calgary	339	June 4, 1907
McIvor, David S.	Marwayne	388	June 14, 1907
McWhirter, Jas. A.	Camrose	408	June 14, 1907

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
McAllister, Donald C.....	Lethbridge	1088	Aug. 20, 1909
McDonald, Geo. A.....	Pincher Creek	454	July 15, 1907
McAllister, Alfred.....	Claresholm	468	July 15, 1907
McGhan, Silas S.....	Clover Bar	493	Oct. 15, 1907
McLean, Laughlin.....	Innisfail	512	Oct. 22, 1907
McGuire, Thos.....	Lacombe	535	Oct. 28, 1907
McLean, Garnet W.....	Calgary	558	Jan. 20, 1908
McPhee, Jno.....	Edmonton	596	April 2, 1908
McDonald, Hugh D.....	Frank	605	April 8, 1908
McCutcheon, R. H.....	Pincher Creek	631	April 9, 1908
McRae, Duncan A.....	Taber	633	Apr. 9, 1908
McRoberts, And.....	Pine Lake	644	April 14, 1908
McDougall, Wm.....	Mewassin	655	April 22, 1908
McIvor, Wm.....	Marwayne	668	April 27, 1908
McDermid, Alex. M.....	Elkwater	703	May 14, 1908
McIntosh, Duncan D.....	Three Hills	795	Sept. 22, 1908
McCall, Samuel D.....	Pincher Creek	932	April 1, 1909
McMillan, Hugh A.....	Edmonton	943	April 3, 1909
McPherson, Jabez B.....	Bentley	946	April 6, 1909
McKenzie, John A.....	Edmonton	1067	May 21, 1909
McPherson, Adam.....	Red Deer	1089	April 24, 1909
McKenzie, Geo.....	Lethbridge	1106	Sept. 15, 1909
McKenzie, Wesley J.....	Brant	1537	Sept. 28, 1910
McCausland, Chas A.....	Calgary	1457	Aug. 8, 1910
McCallum, Jos.....	Beaver Lake	1163	Sept. 29, 1909
McAlister, Donald C.....	Diamond City	1228	Mar. 15, 1910
McLaughlin, Lorne	Cardiff	1310	April 8, 1910
McLaughlin, Wm. E.....	Okotoks	1329	April 8, 1910
McGibbon, Robt F.....	Taber	1374	Oct. 15, 1910
McCauley, Chas.....	New Dayton	1426	June 11, 1910
McBlane, Donald.....	Cowley	1427	June 11, 1910
McPherson, Jno.....	Calgary	2209	April 26, 1912
McTighe, Frank B.....	Lethbridge	1437	July 8, 1910
McKenna, Felix.....	Cochrane	1449	July 15, 1910
McKnight, Dan.....	Calgary	1454	July 29, 1910
McPherson, Alec.....	Blairmore	1470	Aug. 31, 1910
McLeod, Jas. W.....	Leslieville	1516	Sept. 21, 1910
McLeod, John B.....	Innisfail	1517	Sept. 21, 1910
McGlenn, Lester S.....	Lethbridge	1569	Oct. 20, 1910
McDonald, Wm F.....	Lethbridge	1570	Oct. 19, 1910
McAuley, Dan.....	Kipp	1621	Mar. 7, 1911
MacKay, Duncan	Sandstone	2671	Dec. 17, 1913
McLean, Jas.....	Edmonton	1667	Mar. 25, 1911
McMullin, Alp. L.....	Raymond	1682	Mar. 28, 1911
McLeod, Angus	Stettler	1721	April 5, 1911
McLaughlin, Jas M.....	Bassano	1742	April 10, 1911
McLean, Hugh	Cummings	1771	April 21, 1911
McLean, Niven P.....	Berseker	1807	May 6, 1911
McGlen, Robt. M.....	Lethbridge	1833	May 26, 1911
McDermid, Chas. C.....	Alix	1854	June 17, 1911
McKerricher, W. R.....	Pincher Creek	1864	June 20, 1911
McCrae, Ern A.....	Lethbridge	1865	June 20, 1911
McLaughlin, Elmer.....	Edmonton	1896	Aug. 18, 1911
McClennand, Allan	Fishburn	1946	Sept. 9, 1911
McCarty, Jas. S.....	Hand Hills	1995	Nov. 16, 1911
McLeod, Fraser.....	Diamond City	2355	July 19, 1912
McAlduff, Edward	Camrose	2006	Dec. 8, 1911
McCall, Frank M.....	Red Willow	2040	Feb. 14, 1912
McLellan, Murdock.....	Edmonton	2048	Feb. 23, 1912

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
McDonald, Robt. A.....	Lethbridge	2121	April 2, 1912
McMahon, Jas. F.....	Pleasington	2143	April 10, 1912
McDaniel, Hugh C.....	Whitla	2182	April 23, 1912
McInnis, William.....	Cummings	2222	April 29, 1912
McDonald, Wm. A.....	Wainwright	2234	April 29, 1912
McRitchie, Murray.....	Coleman	2267	May 18, 1912
McMillen, Allan D.....	Edmonton	2278	May 23, 1912
McClintock, Warren.....	St. Albert	2317	June 17, 1912
McDonald, Chas. E.....	Edmonton	2318	June 17, 1912
MacAuley, William.....	St. Paul de Metis.....	2332	July 16, 1912
McPhee, Murdock.....	Edmonton	2332	July 16, 1912
McCann, John A.....	Calgary	2364	Aug. 20, 1912
McDevitt, Wm. J.....	Edmonton	2386	Sept. 27, 1912
McDonald, Angus.....	Edmonton	2387	Sept. 27, 1912
McTavish, Hugh R.....	Fort Saskatchewan	2413	Nov. 8, 1912
McInroy, John C.....	Innisfail	1555	Oct. 17, 1910
McInroy, John C.....	Innisfail	2458	Jan. 24, 1913
McCutcheon, William	Edmonton S.....	2047	Feb. 23, 1912
McCutcheon, William	Edmonton S.....	2598	June 21, 1913
McMichael, Ernest W.....	Calgary	2467	Feb. 13, 1913
McIntosh, Harry.....	Cardston	2471	Feb. 19, 1913
McIntee, James.....	Beaver Mines	2487	Mar. 19, 1913
McCarthy, William.....	Entwistle	2493	Mar. 26, 1913
McDevitt, Jas J.....	Tofield	2553	May 3, 1913
McClellan, Daniel	Entwistle	2576	May 20, 1913
McKay, Charles	Macleod	2587	June 19, 1913
McGinnis, James	Burmis	2644	Nov. 8, 1913
McCulloch, Wm H.....	Lundbreck	2658	Dec. 16, 1913
McLean, Myron C.....	Ponoka	2664	Dec. 17, 1913
McConnell, James.....	Drumheller	2673	Dec. 19, 1913
Nelson, Frank	Wetaskiwin	*60	May 30, 1900
Nichol, David	Innisfail	*191	Dec. 18, 1901
Noyes, Dan B.....	St. Albert	*197	Dec. 18, 1901
Nichols, Jas J.....	Edmonton	*358	May 13, 1903
Niven, Jno.....	Lethbridge	*451	Oct. 6, 1903
Nehr, Wm A.....	Edmonton	75	Mar. 26, 1906
Nehr, Henry R.....	Edmonton	245	Sept. 28, 1906
Noel, Kenneth E.....	Canyon	113	April 25, 1906
Nelson, Wilfred.....	Calgary	119	April 30, 1906
Nelson, Arthur W.....	Edmonton	132	May 10, 1906
Neeb, Louis.....	Edmonton	161	June 5, 1906
Nichols, Alex. J.....	Edmonton	220	Sept. 13, 1906
Neis, Geo. M.....	Lamerton	228	Sept. 20, 1906
Norlie, Hackon C.....	Edmonton	501	Oct. 15, 1907
Nixon, Robt. J.....	Crossfield	524	Oct. 24, 1907
Neis, Philip.....	Lamerton	530	Oct. 24, 1907
Neilson, George.....	Haynes	540	Oct. 28, 1907
Nadeau, T. Eudore.....	Lavoy	675	April 27, 1908
Nichols, Wm. R.....	Edmonton	729	May 26, 1908
Neufeld, Abraham J.....	Neopolis	762	Sept. 11, 1908
Neufeld, Peter W.....	Noelton	763	Sept. 11, 1908
Neate, Harry.....	Edmonton	779	Sept. 18, 1908
Newsome, Wm. H.....	Calgary	796	Sept. 22, 1908
Norgaard, Peter J.....	Calgary	797	Sept. 22, 1908
Norton, Paul	Reid Hill	836	Oct. 2, 1908
Nemsgern, Jno.....	Claresholm	837	Oct. 22, 1908
Neville, Fred R.....	Mountain View	853	Oct. 6, 1908
Norrie, Jas.....	Medicine Hat	1051	May 1, 1909

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Nelson, Peter I.....	Amlisk	1093	Sept. 7, 1909
Naylor, Edward H.....	Morinville	1165	Sept. 29, 1909
Nelson, Chrest.....	Medicine Hat	1186	Dec. 17, 1909
Nicholson, John M.....	Lundbreck	1253	Mar. 21, 1910
Neil, N. Walter	Coleman	1471	Aug. 31, 1910
Needham, Harry H.....	Edmonton	1606	Jan. 23, 1911
Noble, William John.....	High River	1656	Mar. 20, 1911
Nelson, Willard T.....	Sunnyslope	1722	April 5, 1911
Nichols, John D.....	Lethbridge	1788	Oct. 24, 1911
Nelson, Joseph	Brant	2112	Mar. 28, 1912
Noland, Lars	Cardston	2122	April 2, 1912
Nelson, Charles F.....	Bonnie Glen	2145	April 10, 1912
Nelson, Ernest W.....	Calgary	2210	April 26, 1912
Nothwang, Geo. K.....	Edmonton	2217	April 29, 1912
Neufeld, Abram W.....	Noelton	2259	May 3, 1912
Neggerson, Edward	Calgary	2279	May 22, 1912
Nelson, Earl Alex.....	Calgary	2365	Aug. 20, 1912
Nickerson, Joseph H.....	Strome	2578	May 20, 1913
Nicholls, Milton P.....	Edmonton	*740	Mar. 16, 1905
Ottewell, Richard P.....	Edmonton	*27	Oct. 9, 1899
Omand, John	Edmonton	*522	April 14, 1904
Olsen, H. B.....	Ellerslie	*542	April 18, 1904
Oliver, Wesley N.....	Wostok	*814	April 14, 1905
Olsen, Gilbert E.....	Star	2358	Aug. 8, 1912
Ottewell, Albert.....	Clover Bar	77	Mar. 26, 1906
O'Dell, Geo. W.....	High River	733	June 22, 1908
Orford, Andrew B.....	Macleod	478	July 15, 1907
Oberg, Knute L.....	Strathcona	491	Oct. 15, 1907
Oliver, Peter C.....	Calgary	562	Jan. 20, 1908
Oakes, Louis D.....	Claresholm	567	Mar. 23, 1908
O'Connor, Jno.....	Mossleigh	568	Mar. 28, 1908
Oler, Geo., Jr.....	Stirling	602	April 8, 1908
Orser, John R.....	Tristram	133	April 9, 1910
O'Reilly, C.....	Bells Hill	784	Sept. 18, 1908
Olson, Matz.....	Wilton Park	817	Sept. 28, 1908
Oster, Carl	Good Hope	818	Sept. 28, 1908
Orr, Alf. E.....	Irvine	854	Oct. 6, 1908
Osborne, Homer	Taber	855	Oct. 6, 1908
Orser, Harry	Calgary	883	Mar. 19, 1909
Olsen, Elmer A.....	Prairie View	891	Mar. 24, 1909
Ostby, Anton	Strathmore	1027	April 28, 1909
O'Brien, Roy	Raymond	1107	Sept. 15, 1909
Orr, Joshua	Irvine	1154	Sept. 28, 1909
Ostlund, Gustav	Stirling	1231	Mar. 15, 1910
O'Connell, Patrick B.....	Raymond	1317	April 7, 1910
Ohlson, Carl L.....	Millarville	1409	May 19, 1910
Ohrn, Carl H.....	Ohrnville	1557	Oct. 17, 1910
Omang, Carl A.....	Stettler	1675	Mar. 24, 1911
Ostby, Charles	Milk River	1688	Mar. 29, 1911
Ormsen, Joseph J.....	Ryley	1699	Mar. 31, 1911
Orr, Fred	Canmore	2280	May 22, 1912
Oliver, Robt. T.....	Grassy Lake	1705	Mar. 31, 1911
O'Connor, Pat J.....	Carlstadt	1744	April 10, 1911
Odell, Ed.....	Calgary	1822	May 20, 1911
Ottewell, Arthur J.....	Clover Bar	1894	Aug. 16, 1911
Olsen, J. Gilbert	Burdett	1915	Aug. 24, 1911
Olson, Albert Jos.....	Coleman	2030	Jan. 16, 1912
O'Daniels, John W.....	Coaldale	2064	Mar. 13, 1912

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
O'Rourke, John O.....	Irma	2104	Mar. 25, 1912
Olberg, Christian	Holden	2199	April 24, 1912
O'Neil, Thomas A.....	Mile 43	2238	April 30, 1912
Ottewell, Wm. R.....	Clover Bar	2264	May 8, 1912
Olson, Frank Oscar	Calgary	2346	July 18, 1912
Oxford, Stephen	Edmonton	2388	Sept. 27, 1912
Oaks, John W.....	Edmonton	2430	Dec. 13, 1912
Orvold, Arne E.....	Redcliff	2475	Mar. 10, 1913
Olson, Olaf	Pocahontas	2494	Mar. 26, 1913
O'Neil, Edward	Kananaskis	2511	April 7, 1913
Olson, Ole M.....	Blairmore	2610	July 18, 1913
O'Hara, Charles R.....	Edmonton	2620	Aug. 21, 1913
Pierce, Geo. J.....	Red Deer	*46	Mar. 8, 1900
Pearce, Jas. E.....	Edmonton	*81	Oct. 23, 1900
Putman, Albert E.....	Edmonton	*202	Dec. 18, 1901
Powell, James A.....	Edmonton	*208	Dec. 18, 1901
Pearce, Wm.....	Edmonton	*229	April 23, 1902
Pimm, Jno.	Lethbridge	*258	Aug. 18, 1902
Pullshiy, Wm.....	Star	*384	June 23, 1903
Pullesen, Peter	Calgary	*492	Mar. 14, 1904
Piper, F. E.....	Red Deer	*546	April 18, 1904
Porter, Gerard A.....	Red Deer (dup.).....	*851	June 6, 1905
Peterson, Robt. F.....	Wetaskiwin	*789	Mar. 27, 1905
Pipegrass, Fred'k.....	Raymond	24	Sept. 16, 1905
Pearson, Herbert S.....	Red Deer	62	Dec. 29, 1905
Pefluger, Geo.....	Wetaskiwin	98	April 20, 1906
Peterson, Martin E.....	Claresholm	179	Aug. 13, 1906
Pitmann, Wm. T.....	Wetaskiwin	279	May 15, 1907
Pratt, Arthur W.....	Three Hills	300	May 23, 1907
Patterson, Johnston	Strathcona	308	May 23, 1907
Pyle, Joshua	Langdon	354	June 4, 1907
Peterson, Alfred L.....	Heather Brae	397	June 14, 1907
Phillips, Fred H.....	Frank	476	July 15, 1907
Pylypow, Wasyl	Star	504	Oct. 15, 1907
Prehn, Emil N.....	Strome	508	Oct. 15, 1907
Peterson, Fred A.....	Wetaskiwin	529	Oct. 28, 1907
Page, Sam Jas.....	Lacombe	532	Oct. 28, 1907
Pethick, Roy W.....	Okotoks	1331	April 8, 1910
Pozin, Otto E.....	Claresholm	577	Mar. 23, 1908
Peat, Geo. A.....	Lethbridge	611	April 8, 1908
Power, Eugene	Lethbridge	615	April 8, 1908
Peat, Jas. T.....	Lethbridge	619	April 8, 1908
Phillips, Walter I.....	Magrath	620	April 9, 1908
Peters, Andy	Blairmore	621	April 9, 1908
Peterson, Anton	Evarts	638	April 14, 1908
Parker, Ed. W.....	Innisfail	642	April 14, 1908
Piersall, Wm. S.....	Harmattan	646	April 14, 1908
Putnam, Orlean E.....	Edmonton	666	April 27, 1908
Pfitzeumier, Herman.....	Stettler	2640	Oct. 22, 1913
Pail, Jos., Jr.....	Prague	717	May 18, 1908
Phillips, Wm. J.....	Clover Bar	725	May 18, 1908
Papineau, Francis C.....	Battle Lake	727	May 18, 1908
Parker, David L.....	Penhold	753	Sept. 3, 1908
Parmelee, J. M.....	Bluff Centre	771	Sept. 14, 1908
Park, Hugh A.....	Placington	785	Sept. 18, 1908
Parsons, Harry	Okotoks	2542	April 23, 1913
Philpot, Jos.....	Bawlf	807	Sept. 25, 1908
Podgarmy, Mike	Leduc	819	Sept. 28, 1908

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Portaer, Wm.....	Stavely	838	Oct. 2, 1908
Peak, Jos H.....	Pokahasset	870	Nov. 26, 1908
Payzant, John M.....	Edmonton	873	Dec. 23, 1908
Paul, Karl	Strathcona	880	Mar. 4, 1909
Prout, Thos. R.....	Medicine Hat	904	Mar. 26, 1909
Peterson, Martin O.....	Hicksburg	937	April 2, 1909
Passmore, Thos A.....	Content	964	April 25, 1909
Pouillot, Emil E.....	Taber	1014	April 25, 1909
Pickering, Geo.....	Canmore	1030	April 28, 1909
Pierce, Alfred	Lamont	1040	April 29, 1909
Parsons, Henry	Lac Ste. Anne	1041	April 29, 1909
Purmal, Jacob	Medicine Hat	1052	May 1, 1909
Paget, Thos. J.....	Claresholm	1128	Sept. 21, 1909
Pallot, Harold E.....	Edmonton	1212	Mar. 7, 1910
Powell, John	Lucky Strike	1233	Mar. 7, 1910
Paulsons, Paul	Lethbridge	1237	Mar. 15, 1910
Pattinson, Geo.	Frank	1254	Mar. 21, 1910
Parkin, David	Macleod	1268	Mar. 28, 1910
Piepgas, Valdemar	Raymond	1318	April 7, 1910
Pearson, Richard V.....	Okotoks	1330	April 8, 1910
Puntus, Frank	Airdrie	1340	April 1, 1910
Paradis, Felix	Tofield	1349	April 13, 1910
Parker, John W.....	Bow Island	1379	April 19, 1910
Perks, Chas	High River	1410	April 19, 1910
Phillips, Wm.....	Calgary	1451	July 15, 1910
Purcell, Frank	Taber	1510	Sept. 21, 1910
Peterson Emil.....	Heatherbrae	1538	Sept. 28, 1910
Parker, Ralph A.....	Lewisville	1544	Oct. 7, 1910
Potter, John	Royton	1533	Oct. 17, 1910
Pearce, Gilbert E.....	Edmonton	1561	Oct. 19, 1910
Parson, Howard E.....	Pine Creek	1604	Jan. 20, 1911
Pike, Fred. G.....	Edmonton	168	Mar. 22, 1911
Pederson, S M	Warner	1689	Mar. 29, 1911
Prouty, Hiram	Lost Lake	1700	Mar. 31, 1911
Peterson, Soreng	Hand Hills	1745	April 10, 1911
Porter, J E.....	Medicine Hat	1757	April 15, 1911
Parnell, Fred R.....	Medicine Hat	1758	April 15, 1911
Phillips, Harvey G.....	Cardiff	1772	April 21, 1911
Pratt, Wm W.....	Ponoka	1856	June 17, 1911
Pomarleau, Louis	Burdett	1857	June 20, 1911
Potter, Thomas	Raymond	1866	June 20, 1911
Palmer, Henry A.....	Calgary	1902	Aug. 22, 1911
Pradon, Jean M.....	Strathcona	1921	Aug. 25, 1911
Peterson, Peter	Warner	1948	Sept. 9, 1911
Parro, Louis	Lacombe	1990	Nov. 11, 1911
Pratt, Fred	Lethbridge	2002	Nov. 17, 1911
Proughton, Donald G.....	Elm Park	2010	Dec. 12, 1911
Palar, Henry	Warner	2065	Mar. 13, 1912
Perdue, Nelson	Tofield	2103	Mar. 25, 1912
Pittman, John W.....	Warner	2151	April 16, 1912
Pease, Fred	Milk River	2152	April 16, 1912
Pratt, Fred	Camrose	2169	April 20, 1912
Porter, Charles D.....	Medicine Hat	2183	April 23, 1912
Putnam, Philetus	Claresholm	2248	May 2, 1912
Patton, John P.....	Blairmore	2268	May 18, 1912
Parkening, Amil.....	Tilley	2347	July 18, 1912
Pettley, Daniel R.....	Taber	2626	Sept. 18, 1913
Pinckney, Fred	Medicine Hat	2371	Sept. 17, 1912
Pentzer, Henry W.....	Calgary	2374	Sept. 19, 1912

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Porter, Joshua	Wetaskiwin	2417	Nov. 12, 1912
Pilgrim, Hy. Howard	Edmonton	2431	Dec. 13, 1912
Palmer, Raymond N.	Calgary	2439	Dec. 18, 1912
Paterson, Peter	Edmonton	2650	Dec. 8, 1913
Porter, John, Jnr.	Edmonton	2495	Mar. 26, 1913
Peterson, Leroy	Cardston	2503	Mar. 31, 1913
Purinton, Bert S.	Bassano	2512	April 7, 1913
Polkinghorne, Wm.	Calgary	2635	Oct. 13, 1913
Peabody, Harvey M.	Calgary	2535	Oct. 21, 1913
Patterson, James B.	Calgary	2551	Oct. 26, 1913
Pennock, Frank	Edmonton	2555	May 3, 1913
Prout, Arra T.	Neapolis	2563	May 12, 1913
Patrick, David	Edmonton, S.	2579	May 20, 1913
Peterson, Elmer	Coleman	2588	June 19, 1913
Palmer, Charles D.	Magrath	2589	June 19, 1913
Pennicuick, Albert E.	Edmonton	2619	Aug. 21, 1913
Parks, Guy J.	Edmonton	2639	Oct. 22, 1913
Parker, Robt. W.	Bickerdike	2665	Dec. 17, 1913
Quigley, Thos.	Cochrane	546	Nov. 22, 1907
Quigley, Jas. S.	Cochrane	874	Dec. 31, 1908
Quinn, Wm. B.	Edmonton	1188	Dec. 27, 1909
Quick, Elbert K.	Sundial	1237	Mar. 15, 1910
Quesseth, Geo. O.	Meeting Creek	1435	July 6, 1910
Quinlan, John A.	Hillcrest	2082	Mar. 18, 1912
Quick, Nels	Whitla	2188	April 23, 1912
Robinson, Jno.	Edmonton	*26	Oct. 9, 1899
Rutherford, John	Medicine Hat	1549	Oct. 17, 1910
Ross, Thos. G.	Poplar Lake	*97	Nov. 15, 1900
Rattray, Archie B.	Edmonton	*108	Dec. 15, 1900
Rafie, Andrew	Bon Accord	*301	Oct. 2, 1902
Ryan, James	Wetaskiwin	*316	Oct. 22, 1902
Redig, Valentine	Lacombe	*514	April 18, 1904
Rivet, Arthur	Morinville	*549	May 26, 1904
Ramsay, James	Coleman	620	Oct. 27, 1905
Rice, Geo. A.	Strathcona	39	Sept. 18, 1905
Rath, Edw. L.	Conjuring Creek	93	April 11, 1906
Read, Edgar A.	Manfred	102	April 20, 1906
Reese, Harry E.	Wetaskiwin	137	May 10, 1906
Roulston, Robt	Bowden	160	May 31, 1906
Robearge, Wm.	Vegreville	215	Sept. 13, 1906
Rorem, T. A.	Duhamel	1760	April 18, 1911
Rockstad, Abraham	Wetaskiwin	247	Oct. 5, 1906
Rath, Ernest W.	Conjuring Creek	277	May 15, 1907
Royle, Wm H.	Calgary	347	June 4, 1907
Ramey, Morgan	Vegreville	382	June 14, 1907
Reay, John G.	Lamerton	391	June 14, 1907
Robinson, N. J.	DeWinton	425	June 19, 1907
Rydberg, Emil W.	Glenview	432	June 19, 1907
Richards, Wm.	Lundbreck	920	Mar. 30, 1909
Rice, Wm.	Andrew	500	Oct. 15, 1907
Rear, Chas. W.	Mayton	645	April 14, 1908
Raymer, Oliver	Didsbury	653	April 15, 1908
Russell, Chas. O.	Brockville	695	May 6, 1908
Ramsey, Ralph H.	Vegreville	722	May 18, 1908
Rix, Percy H.	Wetaskiwin	728	May 26, 1908
Rattray, Alex.	Dog Pound	764	Sept. 11, 1908
Rude, John N.	Priddis	804	Sept. 24, 1908

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Ronaghan, Albert H.....	Vermilion	820	Sept. 28, 1908
Reid, Jas. Robt.....	Claresholm	839	Oct. 2, 1908
Rigby, Wm T.....	Claresholm	840	Oct. 2, 1908
Rills, Willson H.....	Claresholm	841	Oct. 2, 1908
Richards, Neal S.....	Aetna	857	Oct. 6, 1908
Rattray, Thos A., Jr.....	Edmonton	*550	May 26, 1904
Ritchie, John	Calgary	884	Mar. 19, 1909
Rothwell, John T.....	Lethbridge	896	Mar. 24, 1909
Robinson, Wm.....	Edmonton	940	April 3, 1909
Russell, John	Gaetz Valley	947	April 6, 1909
Rice, Augustus M.....	Carmangay	972	April 16, 1909
Riches, Chas B.....	Edmonton	984	April 20, 1909
Redshaw, Arthur R.....	Lethbridge	1055	May 3, 1909
Robinson, H M.....	Lethbridge	1059	May 4, 1909
Rundgren, John S.....	Edmonton	1076	May 26, 1909
Robertson, Frank E.....	Gleichen	1130	Sept. 21, 1909
Roy, Jos. R.....	Stony Plain	147	Sept. 25, 1909
Reimer, Henry H.....	Neapolis	1200	Mar. 4, 1910
Romell, Geo. H.....	Stirling	1238	Mar. 15, 1908
Reilly, Thos.....	Coal City	1239	Mar. 15, 1910
Richards, Peter W.....	Lethbridge	1240	Mar. 15, 1910
Rice, Aaron R.....	Claresholm	1279	Mar. 29, 1910
Ross, John P.....	Granum	1282	Mar. 30, 1910
Reed, David	Rimbey	1294	April 1, 1910
Robertson, Geo. H.....	Hamilton	1397	April 25, 1910
Ritchie, Wm. O.....	Strathcona	1444	July 14, 1910
Roberts, Edward Ivor	Strathcona	1445	July 14, 1910
Rhimes, Robt.....	Calgary	1458	Aug. 8, 1910
Roth, Chas.....	Strome	1461	Aug. 15, 1910
Robertson, Mark W.....	Kitscoty	1462	Aug. 24, 1910
Robertson, Jas. M.....	Calgary	1527	Sept. 23, 1910
Reid, John E.....	Eagle Butte	1535	Sept. 24, 1910
Robertson, Alex.....	Calgary	1600	Jan. 13, 1911
Reed, Edwin L.....	Passburg	1603	Jan. 14, 1911
Remington, Otto C.....	Milk River	1690	Mar. 29, 1911
Restfall, Fred	Bassano	1746	April 10, 1911
Rolfson, Sam. G.....	Comrey	1789	April 24, 1911
Rorney, Andrew	Noble	1790	April 24, 1911
Rauds, Harry	Macleod	1791	April 24, 1911
Radway, Orlando S.....	Radway Centre	1816	May 18, 1911
Rawson, George	Suffield	1836	May 26, 1911
Rolfe, Lyman	Bow Island	1867	June 20, 1911
Raw, Frank	Calgary	1883	July 19, 1911
Rusk, Andrew P.....	New Dayton	1916	Aug. 24, 1911
Richfield, Floyd I.....	Macleod	1917	Aug. 24, 1911
Rice, Martin	Grassy Lake	1949	Sept. 9, 1911
Radolff, Adolff.....	Edmonton	1965	Oct. 18, 1911
Richards, Thomas	Calgary	2042	Feb. 14, 1912
Ramsay, Wm. John	Lethbridge	2066	Mar. 13, 1912
Roland, Geo.....	Lille	2083	Mar. 18, 1912
Rich, George	Granum	2094	Mar. 22, 1912
Robertson, Mark W.....	Cardiff	2105	Mar. 25, 1912
Ramsay, Robert.....	Strathcona	2116	April 1, 1912
Rasmussen, Arnold	Standard	2134	April 4, 1912
Reynolds, Geo. P.....	Ferintosh	2170	April 20, 1912
Roman, Ned.....	Thelma	2184	April 23, 1912
Reed, Guy.....	Irma	2200	April 24, 1912
Ross, Wm Hope	Calgary	2211	April 26, 1912
Roberts, John	Calgary	2212	April 26, 1912

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Rowell, James	Calgary	2213	April 26, 1912
Rizzuto, Thomas	Edmonton	2221	April 29, 1912
Reedholm, Victor	Edmonton	2237	April 30, 1912
Ross, Robert McKay	Innisfail	2260	May 3, 1912
Robinson, Miles H.	Calgary	2281	May 22, 1912
Rutherford, Chas E.	Bickerdike	2291	May 29, 1912
Roberts, David O.	Strathcona	2292	May 29, 1912
Rhodes, Edgar	Calgary	2302	June 11, 1912
Rich, Lewis B.	Brochet	2307	June 14, 1912
Ritchie, John R.	Athabasca Landing ...	2323	June 28, 1912
Robin, Victor E.	Edson	2378	Sept. 20, 1912
Robinson, Elwin D.	St. Albert	2379	Sept. 20, 1912
Rimmer, George	Calgary	2440	Dec. 18, 1912
Rhoads, George	Calgary	2479	Mar. 14, 1913
Rogers, James Ed.	Macleod	2489	Mar. 19, 1913
Rintoul, Alex.	Taber	2506	April 3, 1913
Robillard, Archie	Bassano	2536	April 21, 1913
Rogers, Clifford R.	Edmonton	2557	May 3, 1913
Richardson, Tom	Edmonton	2580	May 20, 1913
Ride, George Ed.	Cardston	2590	June 19, 1913
Riddell, William E.	Edmonton	2599	June 21, 1913
Rhodes, Fred N.	Pincher Creek	2634	Oct. 9, 1913
Richards, Alfred	Laggan	2668	Dec. 17, 1913
Stadelbauer, Simon	Spruce Grove	*4	Sept. 18, 1899
Stewart, Thos. H.	Strathcona	*30	Oct. 9, 1899
Smith, Wm. F.	Athabasca Landing ...	*38	Nov. 28, 1899
Shaw, Jno. Y.	Midnapore	*40	Dec. 1, 1899
Saunders, Elias T.	Lethbridge	*47	Mar. 23, 1900
Snider, Jno. B.	Okotoks	*68	July 19, 1900
Steffles, Fred	Morinville	*90	Nov. 15, 1900
Schlegel, Frank	Duhamel	*118	Jan. 26, 1901
Stewart, Archie	Edmonton	*161	Sept. 7, 1901
Stulz, Frank	St. Albert	*196	Dec. 18, 1901
Staffles, Jos.	Morinville	*91	Nov. 15, 1900
Simpson, Robt. N.	Edmonton	*198	Dec. 18, 1901
Smith Sam W.	Leduc	*228	April 23, 1902
Still, Wm.	Vegreville	*328	Dec. 18, 1902
Stewart, Jas. A.	Beaver Lake	*329	Dec. 18, 1902
Shields, Wm. K.	Strathcona	*363	May 13, 1903
Smith, Larent E.	Ponoka	*387	July 13, 1904
Schatz, Robt.	Strathcona	*635	Oct. 15, 1904
Swift, W. L.	Edmonton	*647	Oct. 15, 1904
Sloan, Wm. J.	Calgary	*145	May 1906
Swingle, Walter A.	Didsbury	*751	Mar. 24, 1905
Scott, Geo. W.	Innisfail	*758	Mar. 24, 1905
Spannel, John	Leduc	*796	Mar. 27, 1905
Scott, Sam R.	Olds	*797	Mar. 28, 1905
Stafford, Jno.	Sollman	*817	April 14, 1905
Short, Walker	Mewassin	*826	May 13, 1905
Schulli, Angelo	Lille	1453	Aug. 25, 1910
Skouson, Z. N.	Raymond	21	Sept. 16, 1905
Skouson, Peter N.	Raymond	25	Sept. 16, 1905
Sherwood, L. H.	Beaumont	29	Sept. 16, 1905
Swedfeger, Amos	Leduc	41	Sept. 18, 1905
Svarich, Peter	Kolomea	76	Mar. 26, 1906
Suru, John	Edmonton	78	Mar. 26, 1906
Schroeder, Ed. H.	High River	120	April 30, 1906
Sherlin, Adam	Red Deer	128	Mar. 4, 1906

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Smith, Chas. W.....	Foreman	131	May 10, 1906
Stephenson, Jas. McC.....	Innisfail	155	May 31, 1906
Speakman, Alfred	Penhold	159	May 31, 1906
Sanders, T. Aron	Cardston	166	Aug. 11, 1906
Stephens, Jas.....	Frank	175	Aug. 13, 1906
Stannk, Isadore.....	Frank	176	Aug. 13, 1906
Stillman, Geo. F.....	Spring Point.....	181	Aug. 13, 1906
Stuckney, Richard	Pincher Creek	185	Aug. 13, 1906
Scribner, Jos.....	Leavings	190	Aug. 13, 1906
Smith, Jos. H.....	Nanton	195	Aug. 13, 1906
Stevens, H. E.....	Macleod	202	Aug. 13, 1906
Smith, David H.....	Calgary	206	Aug. 25, 1906
Somerset, Robt. N.....	Vermilion	210	Sept. 13, 1906
Smith, Jno.....	Pakan	240	Sept. 27, 1906
Stevens, Harry L.....	Olds	211	Sept. 13, 1906
Small, Jesse J.....	Didsbury	243	Sept. 26, 1906
Scarth, Walter	Calgary	269	April 29, 1906
Santrock, J. M.....	Edmonton	269	April 29, 1907
Sorenson, Nels G.....	Kellman	283	May 15, 1907
Smith, Chas. A.....	Red Deer	285	May 15, 1907
Smith, Sam T.....	Leslieville	287	May 20, 1907
Schmidt, Henry W.....	Red Deer	288	May 20, 1907
Salzl, Rudolph	Morinville	307	May 23, 1907
Swingle, Gala R.....	Didsbury	310	May 29, 1907
Scott, Wm.....	Three Hills	321	May 29, 1907
Stagg, Jno. C.....	Calgary	805	Sept. 22, 1908
Stearns, Chas. A.....	Carstairs	356	June 4, 1907
Siddall, Wm. M.....	Neapolis	360	June 4, 1907
Saunders, Abraham	Lacombe	372	June 7, 1907
Stevens, Clostin H.....	Erskine	378	June 7, 1907
Swan, Jno.	Wessington	379	June 7, 1907
Scoville, Wm. A.....	Earling	413	June 14, 1907
Schattschneider, Herman.....	Ellerslie	415	June 14, 1907
Sinclair, Donald	Cayley	422	June 19, 1907
Sallendach, Robt.....	Brant	427	June 19, 1907
Sparrow, Jas. W.....	Lethbridge	440	June 20, 1907
Stuenkel, Jas. F.....	Claresholm	452	July 15, 1907
Svean, Ole.....	Claresholm	483	Aug. 13, 1907
Salmon, Jno. F.....	Raymond	458	July 15, 1907
Spencer, Jno. H.....	Medicine Hat	480	July 24, 1907
Somerset, Thos. B.....	Edmonton	494	Oct. 15, 1907
Santrock, Harvey S.....	Edmonton	498	Oct. 15, 1907
Skolitzky, Jno. J.....	Calgary	520	Oct. 24, 1907
Spreeman, Allen	Didsbury	522	Oct. 24, 1907
Skirkey, Jno. W.....	Lacombe	534	Oct. 28, 1907
Simmonds, Henry	Banff	547	Nov. 26, 1907
Stanworth, Stephen	Bankhead	549	Dec. 5, 1907
St. George, Stephen	Macleod	607	April 8, 1908
Schroeder, Waldemer	Macleod	604	April 8, 1908
Simpson, David A.....	Macleod	622	April 9, 1908
Sorenson, Willard	Leavitt	629	April 9, 1908
Speight, Frank	Red Deer	637	April 14, 1908
Sawatzky, Bernard P.....	Didsbury	650	April 15, 1908
Slater, Alfred	Medicine Hat	661	April 27, 1908
Saunders, Wallace	Conjuring Creek	674	April 27, 1908
Stearns, Harvey N.....	Innisfree	679	April 27, 1908
Scoonover, Frank	Content	688	May 1, 1908
Story, Hillard M.....	Talbot	692	May 6, 1908
Stinson, Fred	Hasting Coulee	706	May 18, 1908

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Svarich, And.....	Vegreville	723	May 18, 1908
Snyder, Jacob F.....	Magrath	749	Aug. 26, 1908
Sanborn, Francis A.....	Innisfail	758	Sept. 8, 1908
Stephen, J. G.....	Edmonton	780	Sept. 18, 1908
Sheffiel, David	Edmonton	821	Sept. 21, 1908
Shandro, Andrew S.....	Shandro	822	Sept. 28, 1908
Stafford, Geo. F.....	Pincher Creek	858	Oct. 6, 1908
Steinhauer, Augustine	Saddle Lake	866	Oct. 27, 1908
Smith, Anthony A.....	Knee Hill	889	Mar. 20, 1909
Steeves, Lorne W.....	Lethbridge	894	Mar. 24, 1909
Schwartz, Chas.....	Lille	921	Mar. 30, 1909
Suitor, Wm.....	Gladys	938	April 2, 1909
Stroud, W. D.....	Crossfield	948	April 6, 1909
States, John G.....	Carstairs	949	April 6, 1909
Smedstad, John	Claresholm	973	April 16, 1909
Schumers, Louis	Willing	992	April 20, 1909
Stern, Fred.....	Bawlf	1002	April 22, 1909
Stenberg, Fred.....	Harland	1003	April 22, 1909
Snyder, Chas. G.....	Calgary	1028	April 28, 1909
Scott, Geo. T.....	Gleichen	1029	April 28, 1909
Scarr, Jos. A.....	Bankhead	1342	April 11, 1910
Sampert, Julius	Bruderheim	1042	April 29, 1909
Scott, Fred.....	Strathcona	2611	July 22, 1913
Schaumleffel, John.....	Lloydminster	1069	May 21, 1909
Stein, Philip	Lethbridge	1073	May 26, 1909
Stubbs, Albert W.....	Medicine Hat	1082	June 18, 1909
Scarfe, Wm. H. T.....	Innisfail	1090	Aug. 24, 1909
Sheppard, Frank H.....	Wetaskiwin	1096	Sept. 7, 1909
Samis, Chas.....	Calgary	1132	Sept. 21, 1909
Schench, Wm. A.....	Thigh Hill	1133	Sept. 21, 1909
Simon, Herbert	Nanton	1134	Sept. 21, 1909
Sommersgill, Robt.....	Calgary	1135	Sept. 21, 1909
Spencer, Fred.....	Cardston	1141	Sept. 24, 1909
Smith, John	Kitscoty	1148	Sept. 25, 1909
St. John, Myron	Edmonton	1166	Sept. 29, 1909
Sinclair, Clarence	Coaldale	1242	Mar. 15, 1910
Smith, Leslie E.....	Lethbridge	1243	Mar. 15, 1910
Schinnour, Gustav.....	Grassy Lake	1244	Mar. 15, 1910
Stuckey, Wilfred F.....	Pincher Creek	1262	Mar. 21, 1910
Sheffield, Geo.....	Macleod	1269	Mar. 28, 1910
Strey, Nelson	Lacombe	1295	April 1, 1910
Snyder, Perry	Pakan	1311	April 6, 1910
Symon, Lindsay	Edmonton	1811	May 16, 1910
Saville, Walter G.....	Calgary	1341	April 11, 1910
Steven, Robt. T.....	Strathcona	1350	April 13, 1910
Sparks, Geo. A.....	Edmonton	1351	April 13, 1910
Smith, Oscar H.....	Lethbridge	1364	April 14, 1910
Stone, Wm. N.....	Langdon	1380	April 21, 1910
Spencer, Geo.....	Calgary	1402	April 28, 1910
Sagomen, Peter E.....	Chauvin	1406	May 17, 1910
Silver, John A.....	Lethbridge	1413	May 21, 1910
Stallworthy, Wm.....	Calgary	1430	June 14, 1910
Savage, Wm. John	Cardston	1438	July 8, 1910
Smith, Henry	Calgary	1456	Aug. 4, 1910
Selwood, Wm. H.....	Welsdale	1463	Aug. 24, 1910
Scott, Michael D.....	Cayley	1489	Sept. 6, 1910
Sand, Oscar L.....	Dina	1505	Sept. 21, 1910
Stewart, Wm. A.....	Gilpin	1506	Sept. 21, 1910
Spencer, Thomas E.....	Wetaskiwin	1545	Oct. 7, 1910

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Shantz, Alson S.....	Didsbury	1554	Oct. 17, 1910
Stobbs, Henry	Medicine Hat	1571	Oct. 20, 1910
Smith, John K.....	Calgary	1576	Oct. 20, 1910
Smeltzer, Geo. E.....	Taber	2160	April 19, 1912
Steeves, Robert	Cleversville	1540	Oct. 3, 1910
Steeves, Robert	Cleversville	1841	May 26, 1911
Snyder, Amasa	Edmonton	1607	Jan. 23, 1911
St. Peter, Moses	MacLeod	1639	Mar. 15, 1911
Snyder, Clarence E.....	Pincher Creek	1640	Mar. 15, 1911
Stilling, Samuel K.....	Three Hills	1658	Mar. 20, 1911
Sergeant, Ed. D.....	Calgary	1659	Mar. 20, 1911
Saunders, Chas. O.....	Okotoks	1660	Mar. 20, 1911
Stanley, Sans. E.....	Calgary	1661	Mar. 20, 1911
Store, William	Calgary	2480	Mar. 14, 1913
Sheardown, Henry	Lorraine	1676	Mar. 24, 1911
Solie, Halbert L.....	Warner	1691	Mar. 29, 1911
Sweet, Charles	Grassy Lake	1707	Mar. 31, 1911
Smyrick, Jos.....	Grassy Lake	1708	Mar. 31, 1911
Stephens, S. E.....	Ponoka	2501	Mar. 28, 1913
Skallin, Olaf	Pretty Hill	1724	April 5, 1911
Shernak, Chas. J.....	Camrose	1725	April 5, 1911
Scott, John S.....	Bashaw	1726	April 5, 1911
Seward, Gale	Strome	1727	April 5, 1911
Shields, David W.....	Carlstadt	1747	April 10, 1911
Schroeder, Alex	Beaver Hills	1773	April 21, 1911
Smith, Thomas M.....	Edmonton	1774	April 21, 1911
Smith, J. Edgar	Noble	1794	April 24, 1911
Schrieber, John	Taber	1793	April 24, 1911
Stephens, Samuel	Carmangay	1799	April 26, 1911
Stewart, Joseph	Irricana	1808	May 6, 1911
Soetje, Henry	Chinook	1824	May 20, 1911
Smith, Albert A.....	Magrath	1839	May 26, 1911
Spangrud, Emil	Pincher Creek	1940	May 26, 1911
Stackhouse, Wm. C.....	Edmonton	1869	June 26, 1911
Sebern, Horance E.....	Edmonton	1872	July 12, 1911
Smeaton, Andrew	Calgary	1903	Aug. 22, 1911
Sorenson, Charles	Lethbridge	1918	Aug. 24, 1911
St. Peter, J. F.....	Diamond City	2361	Aug. 14, 1912
Stevens, George N.....	Calgary	1939	Sept. 8, 1911
Skelton, Fred A.....	Wheat Centre	1950	Sept. 9, 1911
Slevinski, Alex.....	Mundare	1956	Sept. 9, 1911
Spallin, Joseph	Fort Saskatchewan ..	1957	Sept. 9, 1911
Selwood, Wm. H.....	Clover Bar	1966	Oct. 18, 1911
Shields, Jas. R.....	Edmonton	1987	Nov. 10, 1911
Smith, Samuel George	Huxley	2003	Nov. 25, 1911
Smith, John	Edmonton	2022	Dec. 31, 1911
Sommers, Delbert	Lawrence	1241	Mar. 15, 1910
Sommers, Delbert	Lawrence	2153	April 16, 1912
Shidler, Elmer H.....	Cardston	1319	April 7, 1910
Shidler, Elmer H.....	Cardston	2033	Feb. 14, 1912
Schrieber, Wm.....	Eyremore	1709	Mar. 31, 1911
Schrieber, Wm.....	Eyremore	2159	April 19, 1912
Stoner, Orville W.....	Strathcona	1922	Aug. 25, 1912
Stoner, Orville W.....	Strathcona	2106	Mar. 25, 1912
Scott, Wilbert W.....	Summerview	2084	Mar. 18, 1912
Scott, Frank	Gleichen	2132	April 4, 1912
Sears, Thomas	Dalroy	2133	April 4, 1912
Spoucler, W. J.....	Reid Hill	2154	April 16, 1912
Sand, Elmer N.....	Edburg	2171	April 20, 1912

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS OF Final Certificates of Qualification under
The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Strong, Ross D.....	Burdett	2185	April 23, 1912
Scully, Daniel	Seven Persons	2186	April 23, 1912
Sillib, Walter	Whitlaw	2187	April 23, 1912
Sinclair, E. R.....	Medicine Hat	2189	April 23, 1912
Stuart, James E.....	Edmonton	2227	April 29, 1912
Stuart, James E.....	Edmonton	2390	Sept. 27, 1912
Smart, Charles C.....	Crossfield	2240	May 1, 1912
Strang, Andrew R.....	Carbon	2241	May 1, 1912
Stuart, Wm. G.....	Coaldale	2245	May 2, 1912
Sherret, Charles	Lethbridge	2249	May 2, 1912
Stewart, Andrew	Calgary	2282	May 22, 1912
Skark, Jans.	Calgary	2283	May 22, 1912
Smith, Jno. Wesley	Calgary	2303	June 11, 1912
Sherwood, Ralph O.....	St. Albert	2319	June 17, 1912
Shafer, Melvan O.....	Edmonton	2335	July 16, 1912
Scarr, Claude J.....	Bankhead	2348	July 18, 1912
Spencer, James	Calgary	2373	Sept. 19, 1912
Silver, William	St. Albert	2380	Sept. 20, 1912
Stingle, Albert W.	Edmonton	2558	May 3, 1913
Stone, William	Edmonton	2395	Oct. 7, 1912
Scanlin, Edward.....	Bassano	2403	Oct. 19, 1912
Smiley, Levy	Calgary	1852	June 13, 1911
Smiley, Levy	Calgary	2537	April 21, 1913
Stevenson, Ivy W.....	Calgary	2538	April 21, 1913
Schultz, John	Lethbridge	2455	Jan. 15, 1913
Sanders, Thos. O.....	Bassano	2468	Feb. 13, 1913
Schultz, Emil	Bruderheim	2496	Mar. 26, 1913
Scobie, John H.....	Lethbridge	2545	April 23, 1913
Singleton, Thomas F.....	Edmonton	2556	May 3, 1913
Stepina, Joseph	Edmonton	2564	May 14, 1913
Steele, Charles Wm.....	Calgary	2574	May 19, 1913
Stephens, John	Calgary	2585	June 18, 1913
Sterne, Alf.	Calgary	2586	June 18, 1913
Small, Lorne	Maleb	2591	June 19, 1913
Stevens, Fred. V.....	Edmonton	2600	June 18, 1913
Sweet, William A.....	Calgary	2631	Sept. 20, 1913
Stewart, Albert A.....	Flowerdale	2636	Oct. 13, 1913
Scott, William R.....	Edmonton	2646	Nov. 11, 1913
Steele, Thomas	Coalhurst	2659	Dec. 16, 1913
Shea, Pat J.....	Edmonton	2666	Dec. 17, 1913
Trimble, H. W.....	Red Deer	*195	Dec. 18, 1901
Townsend, R. C.....	Canmore	*314	Oct. 20, 1902
Turner, Leonard J.....	Gleichen	469	Nov. 6, 1908
Terry, Peter	Okotoks	*470	Nov. 6, 1903
Turnbull, Robt.....	Strathcona	*519	April 8, 1904
Trussler, A. E.....	Highland Park	*612	Sept. 27, 1904
Tennison, Jno. C.....	Leduc	*722	Mar. 3, 1905
Tribel, Clarence A.....	Red Deer	*782	Mar. 24, 1905
Tillapaugh, John	Warwick	48	Sept. 23, 1905
Tanner, Wm. Jos.....	Raymond	15	Sept. 16, 1905
Thomas, A. I.....	Frank	890	Mar. 24, 1909
Treasure, Sam	Claresholm	58	Dec. 19, 1905
Trembly, Miles I.....	Edmonton	73	Mar. 26, 1906
Taylor, David A.....	Red Deer	162	July 7, 1906
Tufts, Josiah	Taber	187	Aug. 13, 1906
Turner, Ernest H.....	Warwick	214	Sept. 3, 1906
Towers, Fred. J.....	Red Deer	299	May 20, 1907
Traub, Wm.....	Didsbury	325	May 29, 1907

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Telford, Ernest E.....	Vermilion	330	May 31, 1907
Tennant, Wm. J.....	Calgary... ..	350	June 4, 1907
Thompson, Geo. A.....	Red Willow	374	June 7, 1907
Tiede, August	Stettler	375	June 7, 1907
Trussler, A. D.	Strathcona	416	June 14, 1907
Thrum, Chas. W.....	High River	433	June 19, 1907
Turner, George H.....	Taber	445	July 15, 1907
Tucker, Glines	Stavely	1843	May 29, 1911
Tollestrup, Christian F.....	Raymond	472	July 15, 1907
Thwaytes, Lancelot.....	Edmonton	497	Oct. 15, 1907
Tewsley, Jas. S.....	Carstairs	525	Oct. 24, 1907
Thompson, Thos. G.....	Edmonton	589	April 2, 1908
Turnbull, W. N.....	Penhold	634	April 14, 1908
Taylor, Orrin O.....	Harmattan	647	April 14, 1908
Tidball, Wm. E.....	Carstairs	651	April 15, 1908
Taylor, Wm. L.....	Killam	2612	Aug. 2, 1913
Thronson, Theo.....	Camrose	714	May 18, 1908
Teardiff, Jos. E.....	Fort Vermilion	743	Aug. 6, 1908
Toews, Cornelius F.....	Stern	765	Sept. 11, 1908
Tronnes, Peter	Dorenee	808	Sept. 2, 1908
Todd, Walker	Macleod	1270	Mar. 28, 1910
Taylor, Wm. J.....	Lochinvar	976	April 17, 1909
Trono, Louis	Canmore	1032	April 28, 1909
Trono, Emile	Canmore	1033	April 28, 1909
Townsend, Leon E.....	Stirling	1085	July 16, 1909
Thomas, Wm. H.....	Lloydminster	1167	Sept. 29, 1909
Tillapaugh, John F.....	Vegreville	1169	Sept. 29, 1909
Tanner, James	Macleod	1272	Mar. 28, 1910
Taylor, Henry G.....	Ponoka	1296	April 1, 1910
Toward, James B.....	Bankhead	2575	May 19, 1913
Thomas, Emery R.....	Carlstadt	1398	April 25, 1910
Tessier, Geo. A.....	Ena	1431	June 14, 1910
Toppin, Samuel S.....	Calgary	1459	Aug. 15, 1910
Tupper, Roy O.....	Kipp	1483	Sept. 1, 1910
Turner, Philip R.....	Fort Saskatchewan	1518	Sept. 21, 1910
Thomas, Wm.	Bassano	2004	Nov. 24, 1912
Todd, Robt.	Strathcona	1562	Oct. 19, 1910
Tharp, Chancey L.....	Taber	1572	Oct. 20, 1910
Tomfohr, Geo.	Milk River	1587	Nov. 17, 1910
Thompson, Henry	Castor	1677	Mar. 24, 1911
Tennis, Lloyd	Homeglen	1678	Mar. 24, 1911
Taylor, John W.....	Lethbridge	1692	Mar. 29, 1911
Thoreson, Thos. L.....	Holden	1700	Mar. 31, 1911
Tingley, Alex. B.....	Blackfoot	1701	Mar. 31, 1911
Turnell, Reese W.....	Three Hills	1728	April 5, 1911
Towler, John W.....	Sedgewick	1729	April 5, 1911
Taylor, Frank S.....	Carlstadt	1748	April 10, 1911
Thillet, Claud	Calgary	1823	May 20, 1911
Thompson, And. J.....	Lethbridge	1837	May 26, 1911
Thielen, Joseph	Milk River	1838	May 26, 1911
Toews, Peter L.....	Stern	1904	Aug. 22, 1911
Tollestrup, Rudolph W.....	Raymond	2420	Nov. 13, 1912
Trail, Herbert	Calgary	1996	Nov. 16, 1911
Thompson, Gordon B.....	Strathcona	2011	Dec. 11, 1911
Thompson, Chas.	Red Deer	297	May 20, 1907
Thompson, Chas.	Red Deer	2337	July 17, 1912
Thompson, James	Innisfail	2034	Feb. 14, 1912
Thompson, Frank L.....	Macleod	1271	Mar. 28, 1910
Thompson, Frank L.....	Macleod	2085	Mar. 18, 1912

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Thompson, Robson	Calgary	2027	Jan. 16, 1912
Teighton, Roy F.	Wetaskiwin	2050	Feb. 23, 1912
Topper, George	Nanton	2113	Mar. 28, 1912
Taylor, Roy	Dolcy	2146	April 10, 1912
Tubbs, Allie	Taber	2161	April 19, 1912
Thomas, Alfred Ernest	Edmonton	2320	June 17, 1912
Taylor, Stead	Strathcona	2321	June 17, 1912
Thorp, Fred. Wm.	Calgary	2415	Nov. 12, 1912
Todd, Fred. C.	Edmonton S.	2497	Mar. 26, 1913
Towle, Ray M.	Red Cliff	2523	April 15, 1913
Tully, James A.	Calgary	2539	April 21, 1913
Tilly, James A.	Calgary	2540	April 21, 1913
Thomson, John F.	Bellevue	2543	April 23, 1913
Thomson, Alex.	Edmonton	2581	May 20, 1913
Thomson, John	Edmonton S.	2582	May 20, 1913
Tuuly, Fred A.	Medicine Hat	2592	June 19, 1913
Utter, Frank C.	Whitecourt	2051	Feb. 29, 1912
Underpool, Joseph W.	Calgary	2043	Feb. 14, 1912
Utas, Peter	Wetaskiwin	*331	Feb. 13, 1903
Umbach, William	Spruce Grove	*357	May 13, 1903
Umbach, Jno. H.	Spruce Grove	67	Mar. 16, 1906
Urback, Alfred F.	Calgary	258	Jan. 22, 1907
Umbach, Edgar A.	Spruce Grove	656	April 22, 1908
Underwood, Harry A.	Emsbury	689	May 1, 1908
Uhlman, Albert	Granum	842	Oct. 2, 1908
Ursin, Bjerne	Kananaskis	2615	Aug. 11, 1913
Vogel, Wilhelm	Strathcona	*22	Oct. 2, 1899
VanMeter, Chas. E.	Millet	*212	Dec. 18, 1901
Vanacker, Louis	St. Albert	*373	May 13, 1903
Vig, Oscar O.	Bentley	763	Mar. 24, 1905
Veeder, Robt. B.	Wetaskiwin	*791	Mar. 27, 1905
VanSellick, Jacob	Edmonton	32	Sept. 16, 1905
Van Wegan, Louis	Raymond	42	Sept. 18, 1905
Vogel, Ferdinand	Strathcona	2293	May 29, 1912
Vig, Casper O.	Bentley	110	April 25, 1906
Vaughan, Frank	Calgary	336	June 14, 1907
VanWinkle, Howard	High River	430	June 19, 1907
VanWinkle, Chester A.	High River	439	June 19, 1907
Venables, Wm.	Medicine Hat	482	Aug. 1, 1907
Veith, F. Wm.	Inga	490	Oct. 15, 1907
Vesseur, Moses	Sylvan Lake	1194	Feb. 21, 1910
Vlasak, Rudolph	Wessington	539	Oct. 28, 1907
Vandburgh, Jas. N.	Calgary	587	Mar. 23, 1907
Vanyel, Chas.	Edmonton	597	April 2, 1908
Vanderford, Sylvester A.	Stettler	1297	April 1, 1910
Vint, Francis	Stettler	1298	April 1, 1910
Varembo, Olaf H.	Camrose	1546	Oct. 7, 1910
VanMeter, Jacob A.	Millet	823	Sept. 29, 1908
Valentine, Marcon F.	Bellevue	924	Mar. 30, 1909
Vaughn, Clifford E.	Wetaskiwin	1097	Sept. 7, 1909
VanKluck, Alerie	Reid Hill	1136	Sept. 21, 1909
Von Wald, Ernest C.	Stavely	1952	Sept. 9, 1911
Vincent, Robert W.	Coleman	2486	Mar. 14, 1913
Varty, Herbert H.	La Pearl	2147	April 10, 1912
Van Deer Doorn, Ant. E.	Medicine Hat	2190	April 23, 1912
Van Der Velde, M.	Langdon	2214	April 26, 1912
Vogel, Andrew J.	Edmonton	2449	Jan. 13, 1913

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Van Nest, Andrew C.....	Medicine Hat	2603	July 10, 1913
Witmer, Abram	Strathcona	*29	Oct. 9, 1899
Wilson, Jas.....	Calgary	65	July 19, 1900
Wulff, Nick.....	Edmonton	1082	July 13, 1909
Walker, Robt.....	Edmonton	*251	Aug. 18, 1902
Weder, Frank	Beaver Hills	*462	Oct. 28, 1903
Wells, Chas.....	Rosenrohl	*517	April 18, 1904
Wardrop, Jno. L.....	East Clover Bar	*640	Oct. 15, 1904
Will, Louis	Bankhead	*682	Jan. 3, 1905
Wilkinson, Richard	Olds	*754	Mar. 24, 1905
Whitcotton, Robt. M.....	Lacombe	164	July 14, 1906
Wilson, Wm. Jos.....	Coleman	9	Sept. 16, 1905
Wallace, W. J.....	Macleod	12	Sept. 16, 1905
Wood, Wm. F.....	Tofield	44	Sept. 18, 1905
Whalen, Jas.....	Edmonton	69	Mar. 1, 1906
Wetterberg, Theo.....	Canmore	100	April 20, 1906
Watts, Sam	Lacombe	103	April 24, 1906
Werner, Wm. Fred.....	Red Deer	108	April 24, 1906
Waymark, Richard T.....	Calgary	123	April 30, 1906
Whitaker, Wm.....	Edmonton	129	May 4, 1906
Walker, Robt. T.....	Strathcona	134	May 10, 1906
Wisler, Oliver P.....	Stettler	136	May 10, 1906
Webber, Alfred	Medicine Hat	2141	April 23, 1912
Wickens, J. A.	Cayley	199	Aug. 13, 1906
Wright, Bruce M.....	Calgary	205	July 30, 1906
Watters, Wm. E.....	Strathcona	277	Sept. 20, 1906
Wynn, Robt.	Kneehill Valley	291	May 20, 1907
Wood, Rex. R.....	Carstairs	309	May 29, 1907
Wacker, Grover	Rawdonville	322	May 29, 1907
Webster, Robt. J.....	Marwayne	390	June 14, 1907
Walkermeyer, Wm.....	Heatherbrae	396	June 14, 1907
Wilcox, Isaac A.....	High River	423	June 19, 1907
Wilson, Archibald	Brant	1465	Aug. 10, 1910
Wilderman, Raymond A.....	High River	437	June 19, 1907
Walters, Wm.....	Claresholm	864	Oct. 24, 1908
Wilcocks, Wm.....	Lethbridge	457	July 15, 1908
Watson, Walter J.....	Claresholm	578	Mar. 23, 1908
White, Jack	Calgary	585	Mar. 23, 1908
Wright, Merit B.....	Edmonton	593	April 2, 1908
White, Geo. T.....	Red Deer	639	April 14, 1908
Williams, Frank T.....	Crossfield	682	May 1, 1908
Winkleman, Jules	Leduc	711	May 18, 1908
Wilbert, Chas	Wetaskiwin	721	May 28, 1908
Walker, Preston	Lacombe	772	Sept. 14, 1908
Watson, P.....	Edmonton	781	Sept. 18, 1908
Wentworth, Wm.....	Okotoks	806	Sept. 22, 1908
Wilson, Bert M.....	Nanton	843	Oct. 2, 1908
Wright, Leroy H.....	Cardston	859	Oct. 6, 1908
Wilson, Chas. O.....	Spring Coulee	803	Oct. 21, 1908
Wallwork, Jas.....	Taber	903	Mar. 24, 1909
Webster, Alexr.....	Pincher Creek	933	April 1, 1909
Weber, Noah R.....	Carstairs	950	April 6, 1909
Watts, Geo.....	Macleod	957	April 9, 1909
Wilson, Andrew W.....	Vegreville	985	April 20, 1909
Walker, Edgar N.....	Mundare	986	April 20, 1909
Wilson, Jos. W.....	Edmonton	987	April 20, 1909
Wyman, Clark I.....	Magrath	1007	April 25, 1909
Walker, Chas. H.....	Warner	1008	April 25, 1909

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Williams, Edgar H.....	Bankhead	1034	April 28, 1909
Woodcock, Frank F.....	Medicine Hat	1155	Sept. 28, 1900
Wiltzen, Martin	Chipman	1043	April 29, 1909
White, Edward	Lethbridge	1056	May 3, 1909
Winter, Archibald	Strathcona	1072	May 21, 1909
Weisser, Christian B.....	Camrose	1094	Sept. 7, 1909
West, Wm. A.....	Mewassin	1099	Sept. 13, 1909
White, Thos. J.....	Stirling	1108	Sept. 15, 1909
Wick, Anton	Lineham	1137	Sept. 21, 1909
Wilson, Aura L.....	Carstairs	1138	Sept. 21, 1909
Wood, Roy J.....	Carstairs	1139	Sept. 21, 1909
Wolanskey, John	Edmonton	1149	Sept. 25, 1909
Wonnop, Jos. L.....	Lawrence	1156	Sept. 28, 1909
Watt, Geo	Strathcona	1184	Dec. 4, 1909
White, Chris., Jr.....	Red Deer	1201	Mar. 3, 1910
Williams, Albert	Magrath	1245	Mar. 15, 1910
Wilson, Clifford	Camrose	1299	April 1, 1910
Watson, Robt	Edgerton	1352	April 13, 1910
Wilson, Rufus B.....	Tofield	1354	April 13, 1910
Woods, Henry	Warner	1365	April 14, 1910
White, Jas. Albert	Lethbridge	1366	April 14, 1910
Wilson, Robt	Medicine Hat	1399	April 25, 1910
Whitehead, Martin	Banff.....	1432	June 14, 1910
Woods, Harry	Lethbridge	1439	July 8, 1910
White, John W.....	Brooks	1452	July 15, 1910
Walker, John A.....	Warren	1490	Sept. 7, 1910
Wagner, A. C. L.....	Calgary	1529	Sept. 23, 1910
Wilson, John L.....	Bassano	1530	Sept. 23, 1910
Wilson, Wm. John	Angus Ridge	1547	Oct. 7, 1910
Wocknitz, Paul	Magrath	1573	Oct. 20, 1910
Wessenger, Ray	Medicine Hat	1574	Oct. 20, 1910
Wessenger, Ray	Medicine Hat	1749	April 12, 1911
Wolfe, John W.....	Edmonton	1588	Nov. 21, 1910
Williams, Chas. A.....	Calgary	1595	Dec. 15, 1910
Williams, Alfred L.....	Calgary	1596	Dec. 15, 1910
Weston, Thomas W.....	Hillcrest	2559	May 3, 1913
Watson, Wilfred G.....	Calgary	1663	Mar. 20, 1911
Wallace, Richard R.....	Lloydminster	1669	Mar. 22, 1911
White, Wm. R.....	Castor	2089	Mar. 21, 1912
Wight, H. E.....	Cardston	1683	Mar. 28, 1911
Wright, Oscar H.....	Warner	1693	Mar. 29, 1911
Wagar, Elmore C.....	Bow Island	1710	Mar. 31, 1911
Wagar, George.....	Bow Island	1711	Mar. 31, 1911
Wilson, Charles B.....	Olds	1730	April 5, 1911
Wood, Thomas W G.....	Lethbridge	2608	July 18, 1913
Weeks, George S.....	Seven Persons	1795	April 24, 1911
Woods, George	New Dayton	1842	April 26, 1911
Woodrow, Duncan	Edmonton	1847	June 9, 1911
Wilbraham, George	Edmonton	1873	July 12, 1911
Williams, Thomas	Grand Prairie	1884	July 19, 1911
Wilson, Ernest	Langdon	1885	July 19, 1911
Walker, Jas. H.....	Gleichen	1905	Aug. 22, 1911
Wonsen, Louis A.....	Calgary	1940	Sept. 8, 1911
Wagar, Arnold	Millet	1958	Sept. 9, 1911
Wilson, Oscar L.....	High River.....	1971	Oct. 20, 1911
Welsh, John	Vermilion	2012	Dec. 12, 1911
Williams, Ross D.....	Winnifred	2017	Dec. 19, 1911
Wertz, Ran. W.....	Lethbridge	2018	Dec. 19, 1911
Whalls, George	Calgary	2020	Dec. 23, 1911

*Indicates Certificate was granted by North-West Territories.

SCHEDULE OF HOLDERS of Final Certificates of Qualification under
The Steam Boilers Act.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Third Class—Continued			
Wharron, Frank T.....	Calgary	1213	April 7, 1910
Wharron, Frank T.....	Calgary	2162	April 19, 1912
Williams, Wm. D.....	Vermilion	1508	Sept. 21, 1910
Williams, Wm. D.....	Vermilion	2232	April 29, 1912
Wallace, F. M.....	Lethbridge	1878	July 13, 1911
Wallace, F. M.....	Lethbridge	2067	Mar. 13, 1912
Wilson, Stephen E.....	Calgary	2044	Feb. 14, 1912
Wentz, Earl R.....	Medicine Hat	2068	Mar. 13, 1912
Wark, Fred D.....	Gladys	2114	Mar. 28, 1912
Whitehouse, Jas. E.....	Strathmore	2135	April 4, 1912
Willits, John T.....	Clover Bar	2219	April 29, 1912
Weber, Edwin	Didsbury	2261	May 3, 1912
Wesenberg, William	Ghost Pine Creek	2262	May 3, 1912
Wheatley, Edward A.....	Leslieville	2265	May 15, 1912
Williams, John	Lille	2269	May 18, 1912
Watson, Isaac M.....	Lethbridge	2270	May 18, 1912
Winters, Arthur J.....	Bassano	2284	May 22, 1912
Wimer, William	Perintosh	2295	May 29, 1912
Wilcox, Edward	Camrose	2508	April 4, 1913
Wilson, Aaron	Calgary	2304	June 11, 1912
Walker, Alex.....	Calgary	2322	June 21, 1912
White, William L.....	Edmonton	2336	July 16, 1912
Ward, William	Calgary	2349	July 18, 1912
Walker, John F.....	Bassano	2583	May 21, 1913
Wright, Frank G.....	Staffordville	2356	July 19, 1912
Ward, Walter George.....	Lethbridge	2627	Sept. 18, 1913
Wisner, Henry F.....	Nanton	2402	Oct. 19, 1912
Wyatt, Sidney	Calgary	2407	Oct. 19, 1912
Wright, Joseph	Calgary	2408	Oct. 19, 1912
Wooley, Norman.....	Medicine Hat	1400	Dec. 25, 1910
Wooley, Norman.....	Medicine Hat	2524	April 15, 1913
Whyte, William R.....	Calgary	2453	Jan. 15, 1913
Wilson, William	Hardieville	2456	Jan. 15, 1913
Williams, Fred Jas	Medicine Hat	2457	Jan. 15, 1913
Wells, Edwin N.....	Bassano	2481	Mar. 14, 1913
Wallis, Harold W.....	Calgary	2541	April 21, 1913
Williams, Thomas	Lethbridge	2569	May 15, 1913
Wilson, Robert B.....	Edmonton	2621	Aug. 21, 1913
Wilson, Alex.....	Edmonton	2648	Aug. 11, 1913
Whitfield, Arthur	Lethbridge	2660	Dec. 16, 1913
Walker, Earl A.....	Calgary	2670	Dec. 17, 1913
Young, Arthur	Banff	*491	Mar. 14, 1904
Young, D. M.....	Lethbridge	4	Sept. 16, 1905
Yeamans, Chas. A.....	Edmonton	2294	May 29, 1912
Young, Jno. T.....	Stavelly	465	July 15, 1907
Young, Alvia L.....	Markerville	643	April 14, 1908
Young, David	Strathcona	2623	Aug. 25, 1913
Young, Peter	Calgary	959	April 9, 1909
Young, Jas.....	Edmonton	1355	April 13, 1910
Young, Jas.....	Gleichen	1531	April 23, 1910
Yeomans, George M.....	Brochett	1634	Mar. 15, 1911
Yeomans, George M.....	Brochett	2628	Sept. 18, 1913
Zimmerman, Arthur C.....	Bawlf	1548	Oct. 7, 1910
Zuehlke, F. C.....	Urquhart	*188	Dec. 18, 1901
Zimmerman, Otto	Red Lodge	*756	Mar. 24, 1905
Zachowski, John	Edison	1150	Sept. 25, 1909
Zille, Frank	Lille	2629	Sept. 18, 1913
Zorves, Andrew J.....	Blairmore	2088	Mar. 18, 1912
Zavity, Bryant	Edmonton	2464	Feb. 12, 1913

*Indicates Certificate was granted by North-West Territories.

TRACTION ENGINEERS' Final Certificates.

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Arrison, Norman W.....	Gleichen	73	Aug. 16, 1912
Andrews, John	Stewartwayn	1	May 13, 1912
Adler, Lee	Stirling	32	June 14, 1912
Arndt, Paul	Whitla	83	Sept. 17, 1912
Atkinson, Henry	Medicine Hat	84	Sept. 17, 1912
Archambio, Fred	Rosemead	286	June 9, 1913
Alm, Enoch Wm.....	Bittern Lake	173	Mar. 28, 1913
Auburg, Bert	Carlstadt	214	April 7, 1913
Arnew, Thos. A.....	Sundre	224	April 11, 1913
Armstrong, John	Stavely	250	April 23, 1913
Abet, John H.....	Lloydminster	255	April 26, 1913
Affseth, Christian	Holden	305	June 27, 1913
Allen, Wallace	Killam	375	Sept. 25, 1913
Adshead, Cecil H.....	Calgary	396	Nov. 8, 1913
Blatchford, Arthur L.....	Olds	56	July 30, 1912
Benning, Alonso	Lethbridge	26	June 5, 1912
Bassett, Chas. C.....	Cora Lynn	27	June 10, 1912
Burger, Samuel M.....	Bentley	28	June 10, 1912
Bobier, Louis	Coaldale	65	Aug. 14, 1912
Brown, Frank	Spring Coulee	85	Sept. 17, 1912
Buchanan, Robt. Jas.....	Welling	86	Sept. 17, 1912
Boyce, Samuel L.....	Calgary	107	Sept. 19, 1912
Beebe, Roy A.....	Cowley	122	Oct. 17, 1912
Bowman, Harry H.....	High River	126	Oct. 19, 1912
Baker, Edwin E.....	Glenview	127	Oct. 19, 1912
Blegan, John P.....	Crossfield	131	Oct. 19, 1912
Brown, Dewitt E.....	Bells Hill	294	June 17, 1913
Boisvert, Alex.....	Diligence	140	Jan. 13, 1913
Bennett, William H.....	Calgary	141	Jan. 15, 1913
Bjornson, Carl A.....	Lethbridge	142	Jan. 15, 1913
Bulford, George J.....	High River	156	Mar. 14, 1913
Briggs, Ami C.....	Stavely	166	Mar. 19, 1913
Bransen, Joseph H.....	Spring Lake	174	Mar. 28, 1913
Bowie, George W.....	Ferry Point	175	Mar. 28, 1913
Button, Albert M.....	Wiste	176	Mar. 28, 1913
Behrens, David	Erskine	177	Mar. 28, 1913
Bonson, Mick	Castor	205	April 4, 1913
Bond, Lester H.....	Bassano	215	April 4, 1913
Boschee, Jacob J.....	Thelma	227	April 15, 1913
Burt, Leander B.....	Suffield	251	April 23, 1913
Berger, Theo. G.....	Purple Springs	279	May 15, 1913
Betz, Wilber L.....	Curlew	288	June 16, 1913
Brewer, William C.....	Stettler	289	June 16, 1913
Bower, George E.....	Calgary	297	June 18, 1913
Bricker, Ralph	Strome	307	July 10, 1913
Brown, Lawrence	Jethson	308	July 15, 1913
Barton, Reginald	Edmonton	330	Aug. 21, 1913
Bjornson, Henry A.....	Pendant D'Oreille.....	341	Sept. 14, 1913
Brickman, Julius	Wetaskiwin	342	Sept. 16, 1913
Brown, Earl F.....	Crossfield	362	Sept. 20, 1913
Brunelle, Oscar	St. Paul de Metis	400	Nov. 11, 1913
Cale, Arthur Wm.....	Lethbridge	339	Sept. 9, 1913
Choate, Stewart	Trochu	2	May 13, 1912
Curtis, Albert G.....	Cora Lynn	3	May 13, 1912
Cook, Manny A.....	Calgary	17	May 22, 1912
Cathcart, James	Edmonton	38	June 17, 1912
Christensen, Jacob	Standard	48	July 18, 1912
Coutts, Alex.....	Warner	53	July 19, 1912
Church, Herbert Geo.....	Winnifred	66	Aug. 14, 1912

*Indicates Certificate was granted by North-West Territories.

TRACTION ENGINEERS' Final Certificates.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Coldsnow, Alvah	Coutts	87	Sept. 17, 1912
Clark, Charles	Calgary	278	June 13, 1913
Caskey, Oran A.	Caskey	115	Sept. 27, 1912
Shaffin, John D.	Arrowood	129	Oct. 19, 1912
Chippenden, Henry L.	Bassano	138	Dec. 18, 1912
Colwell, Samuel W.	Vulcan	157	Mar. 14, 1913
Curtis, Guy H.	Strome	178	Mar. 28, 1913
Cameron, Donald F. B.	Sedgewick	179	Mar. 28, 1913
Cameron, John A.	Sedgewick	180	Mar. 28, 1913
Culler, Ira M.	Warner	199	Mar. 31, 1913
Curtis, Alfred	McDonaldville	256	April 26, 1913
Craig, Russel H.	Macklin	267	May 3, 1913
Currie, Dugald	Athabasca	273	May 14, 1913
Compton, John A.	Vermilion	301	June 21, 1913
Carson, William	Edmonton	331	Aug. 21, 1913
Carman, Alvin E.	Airdrie	363	Sept. 20, 1913
Carrier, Charles H.	Calgary	364	Sept. 20, 1913
Chubb, Ernest	Kew	365	Sept. 20, 1913
Cromarty, William A.	Pakan	376	Sept. 5, 1913
Donnelly, Walter S.	Bow Island	33	June 14, 1912
Dimmer, Matt	Coaldale	67	Aug. 14, 1912
Dopp, Barnett	Seven Persons	88	Sept. 17, 1912
Danielson, Daniel T.	St. Kilda	89	Sept. 17, 1912
Derby, Bernie E.	Ft. Saskatchewan	111	Sept. 20, 1912
Dalquist, August	Calmar	133	Nov. 8, 1912
Dillard, James	Killam	181	Mar. 28, 1913
Delmage, Harry	Taber	203	April 3, 1913
Davis, Henry D.	Three Hills	206	April 4, 1913
Davis, James M.	Ranfurly	234	April 17, 1913
Djuff, Kleng	Dina	257	April 26, 1913
Ducholke, Mike	Stony Plain	258	April 26, 1913
Deas, John W.	Edmonton	284	May 20, 1913
Dobbs, Leo. W.	Iowalta	290	June 16, 1913
Day, George F.	Jackville	309	July 15, 1913
Dierks, Charles Theo.	Calgary	366	Sept. 20, 1913
Eggenberger, Emil W.	Coalbanks	4	May 13, 1912
Engle, Ralph N.	Bassano	31	June 11, 1912
Elliott, Walter E.	Calgary	130	Oct. 19, 1912
Estwick, Emanuel	Carlstadt	216	April 7, 1913
Enzenauer, Arthur	Loma	217	April 7, 1913
Ensign, A. L.	Whitla	327	Aug. 12, 1913
Fyrk, Gust	Pendant D'Orelle.	12	May 18, 1912
Firth, Wilfred	Lethbridge	123	Oct. 17, 1912
Frederickson, D. O.	Calgary	134	Nov. 8, 1912
Forbes, Percy H.	Lacombe	143	Jan. 24, 1913
Fry, John	Edmonton	312	July 17, 1913
Farries, Cameron	Grassy Lake	326	Aug. 12, 1913
Forbes, Henry	Lacombe	343	Sept. 16, 1913
Finlay, L. Jackson	Calgary	367	Sept. 20, 1913
Green, John Hy.	Staunton	68	Aug. 14, 1912
Gray, Joseph O.	Grassy Lake	13	May 18, 1912
Grubert, Henry	Leduc	57	Aug. 12, 1912
Gow, Archibald	Athabasca Landing	40	June 28, 1912
Gilchrist, Lee	Hill Springs	90	Sept. 17, 1912
Graham, Fred O.	Claresholm	91	Sept. 17, 1912
Gibson, Raymond	Warner	152	Mar. 10, 1913
Gale, Edwin	Stettler	182	Mar. 28, 1913
Gibson, E. E.	Warner	200	Mar. 31, 1913

*Indicates Certificate was granted by North-West Territories.

TRACTION ENGINEERS' Final Certificates.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Gotenborg, Otto T.....	Coutts	252	April 21, 1913
Getts, Gardo F.....	Carmangay	253	April 23, 1913
Green, George H.....	Alsask	285	May 21, 1913
Gale, Joseph A.....	Stettler	291	June 16, 1913
Garrison, Clinton	Edmonton	325	Aug. 12, 1913
George, Fred R.....	Cadogan	332	Aug. 21, 1913
Gitzel, Gustave.....	Stony Plain	333	Aug. 21, 1913
Groft, John W.....	Strathmore	363	Sept. 20, 1913
Gauthier, Artem	Edmonton S.....	391	Oct. 22, 1913
Giese, Henry	Spruce Grove	392	Oct. 22, 1913
Harwood, Gordon W.....	Stettler	5	May 13, 1912
Hesse, William	Calgary	18	May 22, 1912
Hewer, Eber J.....	Hairy Hill	58	Aug. 12, 1912
Haley, Edward Geo.....	Wheat Centre	74	Aug. 20, 1912
Hantsman, Lewis J.....	Carmangay	92	Aug. 17, 1912
Hall, Wm. J.....	Calgary	105	Sept. 19, 1912
Harmer, Edward	Edmonton	116	Sept. 27, 1912
Henderson, Harry	Okotoks	128	Oct. 19, 1912
Harris, William Ira	Raymond	167	Mar. 19, 1913
Hagen, Lars E.....	Donalda	183	Mar. 28, 1913
Hill, Wellington	Macklin	184	Mar. 28, 1913
Hills, W. Ellisworth	Camrose	185	Mar. 28, 1913
Hodgson, Thomas	Taber	204	April 3, 1913
Hibbert, William J.....	Medicine Hat	229	April 15, 1913
Hill, Leslie	Calgary	238	April 21, 1913
Howard, Lindsay L.....	Calgary	244	April 21, 1913
Holden, Frank	Lethbridge	254	April 21, 1913
Hellekson, Hy J.....	Edson	259	April 26, 1913
Houle, William	Edison	274	May 14, 1913
Hyatt, James E.....	Halkirk	292	June 16, 1913
Harrison, Oscar W.....	Noble	321	Aug. 11, 1913
Hilstad, Carl	Bentley	344	Sept. 16, 1913
Huculak, Bronislaw	Skaro	401	Dec. 17, 1913
Iverson, Louis O.....	Bismarck	29	June 10, 1912
Irving, Frank	Edmonton	302	June 21, 1913
Jerome, Earl	Noble	14	May 18, 1912
Johnson, John G.....	Suffield	19	May 22, 1912
Johnston, Aug. K.....	Strathcona	25	May 29, 1912
Jackson, Lionel A.....	Calgary.....	75	Aug. 20, 1912
Jamieson, Harry W.....	Nanton	76	Aug. 20, 1912
Johannsen, Hy. G.....	Bergen	113	Sept. 21, 1912
Johnston, Albert E.....	Edmonton	117	Sept. 27, 1912
Johnson, Oscar F.....	Strathmore	139	Dec. 18, 1912
Jackline, Morley	Lethbridge	306	July 10, 1913
Johnson, Lars B.....	Donalda	186	Mar. 28, 1913
James, William J.....	Halkirk	207	April 4, 1913
Julson, Hans G.....	Bassano	239	April 21, 1913
Jennings, Thomas	Strathmore	240	April 21, 1913
Johnson, John A.....	Millet	271	May 10, 1913
Johnson, Louis	Brochett	280	May 15, 1913
Johnson, Cornelius G.....	Carlstadt	317	Aug. 6, 1913
Johnson, J. O.....	Stoppington	322	Aug. 11, 1913
Johnston, Edwin N.....	Yetwood	329	Aug. 12, 1913
Klaparezuk, Stephen	Mundare	121	Oct. 14, 1912
Krodel, John A.....	Irvine	55	July 23, 1912
Koester, Clarence G.....	Lost Lake	69	Aug. 14, 1912
Kelly, Robert	Calgary	77	Aug. 20, 1912
Kuhl, Edward	Calgary	20	May 22, 1912
Kirsthman, Jacob	Castor	208	April 4, 1913

*Indicates Certificate was granted by North-West Territories.

TRACTION ENGINEERS' Final Certificates.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Knight, Absalom.....	Sounding Creek.....	209	April 4, 1913
Klageg, Knut.....	Calgary	241	April 21, 1913
Killian, Andrew A.....	Holden	260	April 26, 1913
Knape, Gus F.....	Bassano	318	Aug. 6, 1913
Kruger, Rune H.....	Trochu	345	Sept. 16, 1913
Kotscherofsky, John	Stony Plain	377	Sept. 25, 1913
Kleparczuk, Michael	Chipman	393	Oct. 22, 1913
Loomer, Chas S.....	Endiang	6	May 13, 1912
Langer, Paul	Eckville	30	June 10, 1912
Lyon, Jay	Claresholm	35	June 14, 1912
Latta, Charles W.....	Tofield	39	June 17, 1912
Lawin, Frank E.....	Pine Creek	59	Aug. 12, 1912
Lawler, Joseph W.....	Lethbridge	70	Aug. 14, 1912
Lefebvre, Adelard J.....	Irvine	72	Aug. 14, 1912
Litke, Steve.....	Gleichen	78	Aug. 20, 1912
Lynn, John W.....	Crossfield	101	Sept. 19, 1912
Lerbeckmo, Peter	Bardo	112	Sept. 20, 1912
Lagasse, John L.....	Edison	275	May 14, 1913
Love, Charles M.....	Lethbridge	150	Feb. 19, 1913
Lindquist, John A.....	Bigstone	218	April 7, 1913
Loewen, Jacob D. R.....	Sunnyslope	219	April 7, 1913
Lapierre, Joseph	Duvernay	235	April 17, 1913
Lucas, Jacob A.....	Calgary	242	April 21, 1913
Levers, Reginald	Munson	243	April 21, 1913
Long, Arth S.....	Bassano	245	April 21, 1913
Lawson, Harry	Edgerton	261	April 26, 1913
Lawin, Edward A.....	Pine Creek	262	April 26, 1913
Lindblad, Henning	Spring Coulee	281	May 15, 1913
Lyon, Herbert T.....	Calgary	323	Aug. 11, 1913
Lindquist, Arthur	Czar	346	Sept. 16, 1913
Leicht, David	Hanna	347	Sept. 16, 1913
LaValley, Lawrence	Carmangay	354	Sept. 18, 1913
Lee, Ole J.....	Bow Island.....	355	Sept. 18, 1913
Lepard, Norman	Claresholm	356	Sept. 18, 1913
Lovering, Eroul E.....	Iron Springs	357	Sept. 18, 1913
Lee, Henry	Wetaskiwin	378	Sept. 25, 1913
Lindsay, Chas. B.....	Greenshields	379	Sept. 25, 1913
Lobb, Rodmond.....	Edmonton	380	Sept. 25, 1913
Lund, Otto O.....	Holden	381	Sept. 25, 1913
Letourneau, Leo M.....	High River	397	Nov. 8, 1913
Magill, Otis D.....	Calgary	79	Aug. 20, 1912
Matti, Adolf	Macleod	93	Sept. 17, 1912
Maki, Gust	Sylvan Lake	135	Nov. 12, 1912
Mullane, Chris D.....	Lethbridge	137	Dec. 17, 1912
Marty, Robert, Jr.....	Carlstadt	315	July 30, 1913
Muir, George S.....	Pincher Creek	162	Mar. 14, 1913
Melnyk, Joseph	Lamont	170	Mar. 26, 1913
Madden, Fred C.....	Cardston	201	Mar. 29, 1913
Morgenroth, Emil	Langdon	220	April 7, 1913
Marty, Oscar	Suffield	221	April 7, 1913
Mitchell, William A.....	Tofield	264	April 26, 1913
Manske, Gustav	Macklin	268	May 3, 1913
Mark, Leonard	Manville	269	May 3, 1913
Mundell, David L.....	Cherhill	276	May 14, 1913
Martin, Harvey R.....	Namaka	296	June 18, 1913
Moore, George	Winnifred	298	June 19, 1913
Mead, Russell	Calgary	310	July 15, 1913
Minchon, John	Bruce	334	Aug. 21, 1913
Moss, John B.....	Stavely	353	Sept. 18, 1913
Maynard, Frank	Britain	388	Oct. 10, 1913

*Indicates Certificate was granted by North-West Territories.

TRACTION ENGINEERS' Final Certificates.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
McCoy, Martin H.....	Coaldale	15	May 18, 1912
McGhan, Lloyd James	Clover Bar	60	Aug. 12, 1912
McNab, Duncan	Kipp	96	Sept. 17, 1912
McDowell, Grant S.....	Vulcan	124	Oct. 17, 1912
McNarland, Robert J.....	Granum	338	Aug. 29, 1913
McGinnis, John W.....	Lethbridge	374	Sept. 23, 1913
McKeage, Alfred	Aldersyde	158	Mar. 14, 1913
McWhirter, And. L.....	Round Hill	225	April 10, 1913
McLeod, Alex	Walsh	230	April 15, 1913
McKinney, Heber	Suffield	231	April 15, 1913
McLeod, James	Paradise Valley	263	April 26, 1913
McNally, Roy	Alsask	314	July 22, 1913
McKenzie, Rod	Midnapore	389	Oct. 13, 1913
Nelson, Ernest W.....	Calgary	125	Oct. 19, 1912
Nemsgern, Nicholas	Claresholm	94	Sept. 17, 1912
Norris, Roy James	Lethbridge	95	Dec. 17, 1912
Northern, D. W.....	Calgary	324	Aug. 11, 1913
Nafziger, Joseph G.....	Vulcan	358	Sept. 18, 1913
Nichol, James	Langdon	369	Sept. 20, 1913
Ogden, Herman E.....	Pincher City	34	June 14, 1912
Olson, Oscar T.....	Hutton	49	July 18, 1912
Oscerloh, George	Pleasington	144	Feb. 12, 1913
Olsgard, Oliver E.....	Halkirk	189	Mar. 28, 1913
Owen, Arthur	Bassano	222	April 7, 1913
O'Neil, James W.....	Winnifred	232	April 15, 1913
O'Connor, Tim	Manville	236	April 17, 1913
Overgard, Jacob	Crossfield	247	April 21, 1913
Ostheller, Ferdinand	Trochu	348	Sept. 16, 1913
Perin, Charles A.....	Calgary	50	July 18, 1912
Pearson, Vernon	Lethbridge	54	July 19, 1912
Pennington, Wm.....	Lethbridge	136	Nov. 13, 1912
Pearson, Augustus	Bellevue	163	Mar. 19, 1913
Proudley, Harry	Lethbridge	154	Mar. 10, 1913
Peterson, Henry A.....	Ohaton	190	Mar. 28, 1913
Pettie, Lewis L.....	Castor	210	April 4, 1913
Pudwell, Henry	Medicine Hat	233	April 15, 1913
Paulin, Henry	Vegreville	237	April 17, 1913
Parken, Walter	Calgary	248	April 21, 1913
Perry, George H.....	Perbeck	293	June 16, 1913
Palmer, Wilfred	Albay	299	June 19, 1913
Peabody, Harvey M.....	Calgary	349	Sept. 16, 1913
Phelps, Harvey J.....	Tofield	335	Aug. 21, 1913
Paulson, John M.....	Barons	359	Sept. 18, 1913
Petit, Moise	Edmonton N	382	Sept. 25, 1913
Pinkham, Edwin S.....	Leslieville	390	Oct. 13, 1913
Robertson, Donald	Medicine Hat	36	June 14, 1912
Rowlands, Hugh G.....	Delroys	51	July 18, 1912
Rennie, James C.....	Yetwood	71	Aug. 14, 1912
Rhoads, George	Calgary	80	Aug. 20, 1912
Rickey, Foster	Lethbridge	97	Sept. 17, 1912
Richardson, C. E.....	Carstairs	146	Feb. 13, 1913
Rifford, Thaddeus	Stavely	149	Feb. 19, 1913
Ravensborg, Harry	Asker	191	Mar. 28, 1913
Roberts, Delbert	West Wingham	192	Mar. 28, 1913
Ramsey, Frank	West Wingham	211	April 4, 1913
Rousche, Claud	Gleichen	223	April 4, 1913
Roneberg, Edward	Eagle Hill	249	April 21, 1913
Raltz, Charles E.....	Warner	282	May 15, 1913

*Indicates Certificate was granted by North-West Territories.

TRACTION ENGINEERS' Final Certificates.—Continued.

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Ross, Anson Charles	Lethbridge	300	June 19, 1913
Roth, Gustave	Leduc	336	Aug. 21, 1913
Radeliffe, Fred M.	Stony Plain	337	Aug. 21, 1913
Ross, Chas. Chris.	Innisfail	350	Sept. 16, 1913
Rhoads, Harvey L.	Calgary	370	Sept. 20, 1913
Rhyason, William	Strome	394	Oct. 22, 1913
Smith, Rowland	Caseleyville	7	May 13, 1912
Scheersmidt, Bernhard ..	Stettler	8	May 13, 1912
Smith, Manley	Olds	11	May 15, 1912
Scott, William J.	Bassano	21	May 22, 1912
Stauffer, John L.	Round Hill	24	May 29, 1912
Scott, Allan O.	Kinsella	42	July 16, 1912
Stott, John J.	Hardisty	43	July 16, 1912
Sidet, Elmer	Jethson	52	July 18, 1912
Sandstrom, Axel	Calmar	61	Aug. 12, 1912
Schultz, Fred H.	Bruderheim	62	Aug. 12, 1912
Samuelson, Lorantz.	Cummings	63	Aug. 12, 1912
Stewart, William J.	Hughenden	81	Aug. 22, 1912
Straus, Fred J.	Stavely	98	Sept. 17, 1912
Scott, Robert T.	Cayley	108	Sept. 19, 1912
Stevenson, Ivie W.	Calgary	109	Sept. 19, 1912
Stewart, Martin O.	Calgary	110	Sept. 19, 1912
Smith, Aug. W. De'H.	Paddle River	114	Sept. 20, 1912
Snell, Edward	Bittern Lake	18	Sept. 27, 1912
Scheideman, John	Mewassin	120	Oct. 10, 1912
Streich, Daniel	Content	145	Feb. 12, 1913
Senff, Ernest W.	Blackie	159	Mar. 14, 1913
Stuckey, Richard P.	Calgary	160	Mar. 14, 1913
Sorge, Otto R.	Pincher Creek	164	Mar. 19, 1913
Sharlow, Hy. T.	Wetaskiwin	193	Mar. 28, 1913
Shantz, Wilfred S.	Didsbury	212	April 4, 1913
Semple, Hugh	Chauvin	265	April 26, 1913
Swift, George H.	Magin	270	May 3, 1913
Stoner, Edgar C.	Iacombe	272	May 12, 1913
Shank, Eddie J.	Athabasca	277	May 14, 1913
Shank, Philip	Athabasca	278	May 14, 1913
Sims, John B.	Namaka	295	June 18, 1913
Shelton, Henry	Edmonton	303	June 21, 1913
Symington, George	Edmonton	304	June 21, 1913
Sheets, William H.	Viking	313	July 17, 1913
Smith, Charles	Gadsby	320	Aug. 9, 1913
Sterling, Edward J.	Sterlingville	351	Sept. 16, 1913
Sear, Robert J.	Calgary	371	Sept. 20, 1913
Schultze, Otto	Edmonton	383	Sept. 25, 1913
Sheets, Lloyd	Rosenroll	384	Sept. 25, 1913
Saunders, Leslie J.	Olds	395	Nov. 7, 1913
Sutton, Henry H.	Calgary	398	Nov. 8, 1913
Tellesen, Alex.	Ingleton	9	May 13, 1912
Tupper, Roy O.	Entwistle	23	May 29, 1912
Thordarson, Chris	Clover Bar	44	July 16, 1912
Thompson, Charles	Bow Island	99	Sept. 17, 1912
Trudgeon, Thomas	High River	147	Feb. 13, 1913
Thoenke, William	Magrath	151	Feb. 19, 1913
Tweedie, Hawland T.	Fishburn	165	Mar. 19, 1913
Tucker, Leroy C.	Stavely	169	Mar. 19, 1913
Tronson, Ludwig M.	Asker	194	Mar. 28, 1913
Tenny, Harry E.	Warner	198	Mar. 31, 1913
Tomfohr, Henry H.	Milk River	202	Mar. 29, 1913
Tweedt, Thos	Sundial	283	May 15, 1913
Thompson, S. Bert	High River	311	July 15, 1913

*Indicates Certificate was granted by North-West Territories.

TRACTION ENGINEERS' Final Certificates.—*Continued.*

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Thomas, Henry Sanford	Altorado	319	Aug. 6, 1913
Taje, Edwin B.	Gwynne	352	Sept. 16, 1913
Townsend, Albert E.	Mabville	385	Sept. 25, 1913
Underwood, Elmer A.	Gadsby	10	May 13, 1912
Utas, Chas.	Manfred	132	Nov. 7, 1912
Utas, Christian	Water Glen	64	Aug. 14, 1912
Valcour, Alga	Riviere Qui Barre	45	July 16, 1902
Van Horn, William	Gleichen	103	Sept. 19, 1912
Venus, George E. W.	Hand Hill	372	Sept. 20, 1913
Willson, William	Many Berries	16	May 18, 1912
Watters, Chas. A.	Calgary	22	May 22, 1912
Weatherhead, Marsden	Lethbridge	37	June 14, 1912
Ward, Luman G.	Athabasca Landing	41	June 28, 1912
Whitney, John E.	Iola	47	July 17, 1912
Williamson, Charles W.	Claresholm	100	Sept. 17, 1912
Wismer, Henry F.	Nanton	102	Sept. 19, 1912
Wells, Edwin Newton	Cluny	104	Sept. 19, 1912
Wiltzen, Norman	Chipman	119	Sept. 27, 1912
Walker, Earl A.	Airdrie	148	Feb. 13, 1913
Woeknitz, Edward	Lethbridge	165	Mar. 10, 1913
Wood, James Alex	Grand Prairie	172	Mar. 26, 1913
Walkermeyer, Wm. H.	Camrose	195	Mar. 28, 1913
Walkermeyer, Theo. W.	Camrose	196	Mar. 26, 1913
Wilson, Ralph C.	Camrose	197	Mar. 26, 1913
Whitnack, Roy A.	Ensleigh	213	April 4, 1913
Wallace, Lewis B.	Heath	266	April 26, 1913
Ward, Benj. W.	Loverna	340	Sept. 9, 1913
Whitehead, Bert	Claresholm	360	Sept. 18, 1913
Winge, Hugo	Stavelly	361	Sept. 18, 1913
Walgren, Clarence E.	Vulcan	373	Sept. 20, 1913
Whitford, John A.	Pakan	386	Sept. 25, 1913
Woolhouse, William H.	Thibald	387	Sept. 25, 1913
Wiese, Fred C.	Lethbridge	399	Nov. 8, 1913
Yates, Ray	Calgary	161	Mar. 14, 1913
Yerxa, William H.	Lethbridge	328	Aug. 12, 1913

FIREMEN'S Final Certificates.

NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE
Allen, Frederick	Edmonton S.	8	April 6, 1913
Boyce, Walter E.	Calgary	23	Dec. 31, 1913
Fenton, Daniel L.	Edmonton	9	June 21, 1913
Fowls, Roland	Edmonton S.	14	Oct. 14, 1913
Hodson, John	Edmonton	15	Oct. 14, 1913
Lee, Elling	Calgary	3	Sept. 19, 1912
Laskey, Francis W.	Edmonton S.	16	Oct. 14, 1913
Miller, John B.	Calgary	1	June 21, 1912
McCartney, Grant	Edmonton	4	Oct. 8, 1912
Mendte, Theodore	Edmonton	10	June 21, 1913
Nichols, Albert L.	Langdon	21	Dec. 17, 1913
Price, William	Edmonton	17	Oct. 14, 1913
Rigimbal, Louis A.	Lethbridge	6	Jan. 15, 1913
Richardson, Thomas	Edmonton	7	Mar. 26, 1913
Ryder, James J.	Calgary	18	Nov. 7, 1913
Russell, John W.	Calgary	19	Nov. 7, 1913
Spendlove, Joseph	Edmonton S.	5	Jan. 13, 1913
Switzer, Charles W.	Medicine Hat	11	July 10, 1913
Scott, Henry Joseph	Lethbridge	13	Oct. 6, 1913
Sargeant, Gordon	Banff	22	Dec. 17, 1913
Willis, Percy W.	Calgary	2	June 21, 1912
Wahl, George F.	Calgary	12	Aug. 23, 1913
Williams, Frank John	Calgary	20	Nov. 27, 1913

REPORT OF CORRESPONDENCE BRANCH, 1913.

	1912	1913
No. of letters received	51,774	60,120
No. of letters mailed	51,426	48,792
Total number of communications	103,200	108,912
Number of items of cash received.....	2,546	2,246
Amount of cash received.....	\$166,000.05	\$186,944.61
No. of registered letters received	1,678	1,806
No. of registered letters mailed	7,297	6,921
Amount of postage used	\$1,411.25	\$1,391.84
Number of files made and indexed....	1,787	1,726

JOHN STOCKS, Esq.,

Deputy Minister of Public Works,

Edmonton, Alberta.

SIR,—As Accountant of the Department of Public Works, I have the honour to submit herewith my annual report for the year ending December 31st, 1913.

During the year 1913 the amount of revenue received by this branch increased over 1912 by fifty per cent., while the amount expended on Capital Account was less than the previous year. The amount expended from Income Account was considerably greater. Below you will find reported in detail the work of the Department.

Amount provided for Capital Expenditure during 1913	\$2,439,415.00	
Amount provided for Expenditure chargeable to Income	535,500.00	\$2,974,915.00
Amount provided for Civil Government expenditure		69,740.00
Total amount provided in connection with the Department of Public Works for 1913.....		<u>\$3,044,655.00</u>
Monies collected during 1913 on account of Public Works Department, as detailed below and placed to the credit of the General Revenue—		
Steam Boilers Branch	18,311.98	
Coal Mines Branch	5,632.40	
Surveys Branch:		
Grazing leases	\$ 249.00	
Town Site Plans	167,005.50	
Sundries	2,368.49	
	<u>169,622.99</u>	193,567.37
Monies collected by Public Works and placed to the credit of General Revenue Suspense Account..	143,589.07	
Monies on hand in General Revenue Suspense Account December 31st, 1913, as represented by cash book balance		5,174.85
Amount received from L. I. Districts and placed to the credit of Trust Account "A".....		170,806.17
Amount expended for work from Trust Account "A" during 1913		140,244.12
Credit Bank Balance on Trust Account "A" from 1912		25,643.73
Amount expended from General Revenue during 1913—		
Income	515,062.67	
Capital	1,834,490.24	2,349,552.91
Amount expended in connection with Civil Government during 1913		68,643.17
Receipts	395,192.12	
Expenditure	2,558,440.20	
	<u>\$2,953,632.32</u>	<u>\$2,953,632.32</u>

Details of expenditure from all sources for the year are as follows: Furnishing and maintenance of all public buildings, \$176,202.35; care-taking and maintenance of Government House, \$5,372.52; completing and furnishing new buildings throughout the province during the year, \$796,681.78; inspection of public works in connection with the smaller work cost \$9,644.22; while the inspection of Trunk Roads and Bridges as well as the larger class of wooden and steel bridges in the various constituencies cost \$14,701.23. Inspection of Coal Mines in connection with operation and maintenance of the rescue stations cost \$22,362.86,

and the cost of installation of the rescue stations amounted to \$8,925.99. The administration of the Steam Boilers Branch, inspections and examinations cost \$27,483.09. The installation, building, maintenance and operation of the Ferry Service in the province cost \$52,196.33. Repairs and maintenance of existing bridges within the province cost \$29,750.90. The cost of the larger wooden and steel bridges not placed on concrete amounted to \$224,919.34. Trunk roads with the necessary bridges thereon cost \$643,937.33. The cost of the survey parties in the field along with the amount paid for compensation in connection with the necessary road diversions was \$93,370.21; and the administration of this branch including the supervision of plans and the ordinary office expenses amounted to \$7,314.34. Furniture purchased for the parliament buildings cost \$21,989.52 and the amount spent in connection with the improvements of the grounds around the Parliament buildings was \$4,558.40. The cost of finishing material purchased and worked up in the carpenter shop for the various provincial buildings amounted to \$7,618.81. Improvements to the extent of \$724.79 were made in connection with the grounds around the court house at Wetaskiwin. The expense in connection with boring and testing for water amounted to \$3,377.90. The cost of putting in the sewage system and procuring water for the agricultural schools amounted to \$17,062.84. Expenditure unforeseen and unprovided for amounted to \$3,463.05; and the amount spent in connection with the ordinary roads was \$177,895.11.

The total amount expended upon staff salaries for the year was \$57,509.18; postage for the year, \$1,395.00; telegrams, telephone messages and express, \$1,340.10; sundries, including printing, \$8,635.25; a total of \$68,879.53.

The total amount spent from the L.L.I. Trust "A" for all work was \$140,244.12; of this amount \$7,680.00 was paid to the Provincial Treasurer as the proportion of cost to be born by this account for the cost of administration through the Department of Municipal Affairs.

Number of accounts examined and passed to the Treasury Department for payment during 1913	14,234
Number of accounts passed for payment in connection with Trust Account "A" for work during 1913	1,341
Total number of accounts passed for payment	15,575
Number of cheques issued in connection with the payment of accounts under Trust Account "A"	3,465
Number of cheques issued in connection with General Revenue Suspense Account during the year	341
	3,806

Respectfully submitted,

HENRY K. HYDE,

Accountant of Public Works.

